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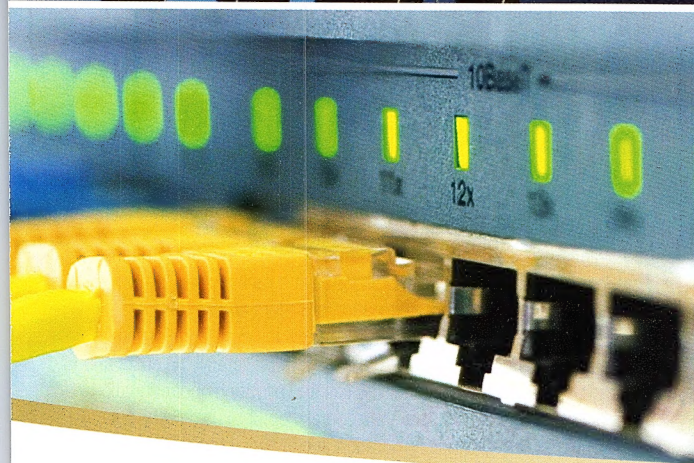
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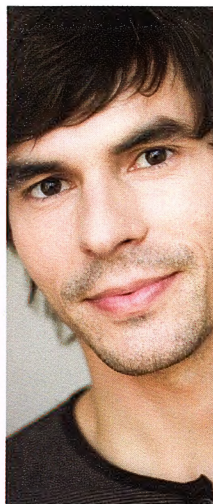
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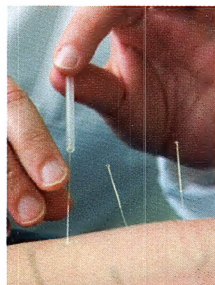
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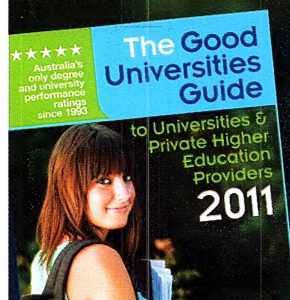


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# **Job Guide for Victoria 2011**



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Some job descriptions refer to further education courses. You should carefully check with the relevant education institutions concerned before making any decisions about school subjects that may be prerequisites for such courses.

IMPORTANT NOTE: The contents of this publication are based on information and advice received by Hobsons, as at the date of compilation, January 2011.

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#### **Where can I get more copies of the Job Guide?**

*Job Guide 2011* books and CD-ROMs are provided free to all schools with Year 10 students. Reference copies may be available through school career advisers and libraries. The Job Guide is also available on the internet at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au).

You can purchase Job Guide books and CD-ROMs by calling 1800 682 133 (FREECALL).

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# Foreword



*Job Guide 2011* is a great way to help you explore the many possibilities that are open to you once you leave school, especially as you have probably already started thinking about life beyond school and what type of career you might like to have.

*Job Guide 2011* has information on more than 500 jobs. You might find some that you never even knew existed! It has information on what it's really like to work in these jobs, as well as the type of study or training you would need to do.

You'll find advice about your options for university study or vocational training through TAFE and private training providers. You can also find out what employers are looking for, learn how to prepare a résumé, answer job advertisements and prepare for job interviews.

To find a job that you will enjoy and do well at, you should think about what you are interested in and good at. Think about the school subjects and other activities that you enjoy and the skills you've already developed through school, part-time work, volunteering, or through other interests such as music or sport.

Your parents, friends, teachers and career advisers can help you to identify these skills and abilities, and how they may relate to jobs. In *Job Guide 2011* you will find *Parents Talking Career Choices*, a brochure for your parents or carers that can help you start sharing ideas and discussing your options.

The Australian economy is always changing, and given the big environmental challenges we face, jobs related to environmental issues will be even more important in the future. This will mean new jobs will become available that we don't even know about today. *Job Guide 2011* includes the Environmental Studies Bullseye which shows you the exciting jobs already emerging from the green economy.

Wherever your career journey takes you I wish you all the best for the future.

A stylized handwritten signature in black ink, consisting of a large 'P' and 'G' followed by a long horizontal stroke.

The Hon Peter Garrett AM MP  
Minister for School Education, Early Childhood and Youth



# Acknowledgments

The Job Guide is researched and authored by Hobsons and Miles Morgan Australia, on behalf of the Department of Education, Employment and Workplace Relations.

We would like to thank the many individuals and groups who contributed information for *Job Guide 2011*. These included professional and industry associations, industry skills councils, trade unions, employers and educational institutions. Without their assistance the publication of the Job Guide would not be possible.

All correspondence relating to the Job Guide should be addressed to:

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We welcome your suggestions and comments.



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# Your guide to the Job Guide

## What's in it?

Job Guide helps young people explore career options and make subject choices. It provides information about a wide range of occupations and the education and training pathways that lead to them. It also includes useful information on the job search process, provides details of available government assistance and suggests where to go for further information.

## Who's it for?

Job Guide is written mainly for Year 10 students. The guide aims to list the most direct education and training pathway to an occupation, which is why combined degrees and postgraduate degrees are not included unless they are specifically required for entry to an occupation.

## Will it help me choose my Year 11 and 12 subjects?

Job Guide includes 2011 course information and advises what subjects may be needed to get into certain courses. **If you are a Year 10 student, you should check the specific entry requirements of the courses that you are interested in with educational and training institutions before you make subject choices for Years 11 and 12.** These requirements may change by the time you are ready to go on to further education or training.

Don't forget to check what vocational education and training options are available at your school because you may be able to get started on an Australian School-based Apprenticeship.

## What if I can't find what I'm looking for?

Job Guide is written for school students preparing for further education and training or **entry-level** employment. As such, some occupations, like high level management roles, are not listed. Roles such as Chief Executive Officer, General Manager or Project Manager are also excluded because they are position titles rather than occupations.

People from a range of professional backgrounds can progress into these positions on the basis of their core qualifications and relevant skills and experience.

Salaries and wages for particular jobs are not listed. This data, along with information on future employment opportunities, can be found on the myfuture website at [www.myfuture.edu.au](http://www.myfuture.edu.au). For further information on job prospects in a particular occupation go to: <http://joboutlook.gov.au>.

Occupation codes that appear in the Australian and New Zealand Standard Classification of Occupations (ANZSCO) are not published in Job Guide. A full list of ANZSCO codes can be found on the Australian Bureau of Statistics website at [www.abs.gov.au](http://www.abs.gov.au).

If you want more information on a particular job, there is a range of contacts listed at the end of every job description, while the Useful addresses section lists education and training contacts. Don't forget that your career adviser can always help as well!

## How to use the Job Guide

### STEP 1 — Start by getting to know yourself!

- think about what subjects you enjoy at school
- go to the Building your career section
- fill in the Type of Work Chart, then
- go to the Jobs Chart to see which occupations:
  - match your results
  - match your desired skill level/s.

### STEP 2 — Use the Bullseye Charts to explore career pathways

The 'School subjects you like and jobs they can lead to' booklet contains Bullseye Charts for over 30 school subject areas. Each chart links a subject you're interested in with a range of possible jobs and shows the education and training needed to do them. The booklet also includes hints on how to use the charts and a list of useful websites. It can be downloaded at [www.deewr.gov.au/bullseye](http://www.deewr.gov.au/bullseye).

Choose a subject you like, think about things you like about that subject and find a job that interests you. The levels on the Bullseyes show you what training and education you need for the job. Write down some jobs you think may suit you.

### STEP 3 — Explore the Job descriptions

- now you have your list of possible occupations, go to the Job descriptions section
- look at the individual descriptions of the occupations on your list
- make sure to check out the 'Related Jobs' at the end of each occupation description
- return to the Jobs Chart and add or cross out occupations you do or don't want to explore further.

### STEP 4 — Talk to your career adviser!

There's heaps of information to help guide you down your career pathway in the front sections of this book. Don't forget that your school career adviser is there to help.

## Before you start exploring . . .

Here are some useful career planning tips to keep in mind as you use the Job Guide:

- plan ahead
- keep your options open
- consider a number of different jobs
- consider further study
- be honest with yourself
- decide what is right for you
- be prepared for change.

Enjoy the journey!



# Building your career

## Your career: A lifelong journey

Your career is something much larger than a job or an occupation.

Your career is the variety of experiences of learning and work (both unpaid and paid) that you undertake throughout your lifetime.

**Career:** the sum total of paid and unpaid work, learning and life roles you undertake throughout your life.

**Occupation:** a group of similar jobs found in different industries or organisations.

**Job:** a position in which you perform tasks for payment.

Our careers are influenced by many things, such as our interests, our age, our education, our families and our cultural values, most of which change over time. In the 21st century, very few people will have the same job or occupation for life. You can expect to make several changes throughout your career.

It's up to you to actively manage the process of building your career, rather than just letting it happen. You will need to plan and manage your lifelong career journey. You are the person best suited to make choices on the basis of your own skills, knowledge and interests. But as you get started, remember that there are people who can help and support you along the way, and you can provide help and support to others as well.

## Exploring your options

STEP 1: Find out about yourself

Many factors affect your career choices, including the people in your life and your circumstances. However, the best way to start thinking about your career is to narrow down the focus to you — your **interests** and **experiences**.

Think about your interests

You'll need to think about more than just the subjects or activities that interest you. You should think about what you like doing, and what you are good at, what you hope for in the future as well as your work style and lifestyle needs. The things you can take into account as you explore your career include:

- **Interests.** What activities are you good at? What do you enjoy doing? What would you like to spend more time doing? What do you plan to do in the future?
- **Work conditions.** What are your preferred work conditions (indoors or outdoors)? How would you like to work (standing or sitting)? Where and when would you like to work (during the day, weekends, on call)?
- **Location.** Where would you like to work and/or study?
- **Knowledge.** What would you like to learn about? What knowledge do you enjoy using?
- **Life balance.** How do you spend your time? How satisfied are you with your use of time? What changes could you make if needed?
- **Work values.** What is important to you? What is the reason you work? What motivates you to study and work? What do you want work to provide you with?
- **Aspirations.** What are your hopes and visions for your future? What do they tell you about your career direction and work roles that might suit you?
- **Skills.** What skills do you enjoy using and what skills would you like to develop?
- **Education.** What qualifications do you have? What do you plan to study in the future?

| Experience   | Description  | What did you learn about you? |
|--|--|-------------------------------|
| <b>Work experience/Structured Workplace Learning</b> | Arrangements between you and an employer where you carry out tasks in the workplace to gain experience in an area of interest.   |                               |
| <b>Community involvement</b>                         | School committees, sporting associations, youth organisations and other community groups.  |                               |
| <b>Life roles</b>                                    | Including being a family member, learner, worker, friend and citizen.  |                               |
| <b>Training</b>                                      | Learning how to do new things, upgrading your skills and knowledge.  |                               |
| <b>Education</b>                                     | Part of lifelong learning. Formal education includes school, Vocational Education and Training (including TAFE) and higher education. Informal education includes workshops, seminars, leisure courses, on-the-job training and workplace mentoring. |                               |
| <b>Volunteer work</b>                                | Performing a task or supplying goods or services to a not-for-profit organisation or project without receiving payment, but gaining skills.  |                               |
| <b>Employment</b>                                    | Working for a public or private organisation and getting paid. This includes full-time, part-time, permanent, casual, temporary, on call, flexible working hours, shift work, job sharing and contract work.   |                               |



### Consider your learning experiences

We learn in a variety of formal settings, such as at school, TAFE, university or with an RTO. We also learn in less formal ways through our involvement in the community or through volunteer work. The following table will help you think about all your learning experiences and what you have learnt about your strengths and preferences through each of them. This is also a good opportunity to reflect on the skills you can report on when putting your résumé together.

#### TIP

*Write down your experiences in each of the above areas when you're thinking about career choices. Refer to them when you talk to employers about how your skills can transfer from one job to another.*

Remember that many of these interests and lifestyle considerations will change as your life circumstances change. Some people make radical changes in direction in their working lives.

#### Jacqueline

For Jacqueline, a traineeship in community services was life changing.

"I wasn't doing any studies and wasn't doing anything with my life. I had no real career aspiration so I had no real drive to do anything different," Jacqueline says.

Jacqueline started working at North West Disability Services as a program assistant, where she helped in the day-to-day running of disability programs, including transition to work programs, fundraising activities and community participation through sports, arts and music.

After completing a Certificate III in Community Services (Disability Work) for her traineeship, Jacqueline began studying a Bachelor of Social Work at the beginning of 2009. Like the Certificate III, Jacqueline is completing her degree by correspondence, studying full time and working full time.

She hopes to encourage others to consider a career in disability work.

Unsurprisingly, Jacqueline is a strong believer in traineeships — after all, her traineeship changed her life and her career path.

"I'm one of the younger ones in my workplace, but it's something I want to change," she says.

Jacqueline said, "I would recommend it in a second. I've already harped on to my younger sister that you don't have to go straight to uni. There are other career paths you can take through TAFE or VET organisations."

With the Australian Training Award added to her impressive résumé, Jacqueline now plans to visit schools and promote the value of undertaking an Australian Apprenticeship or traineeship. In particular, she hopes to encourage others to consider a career in disability work.

#### Jason

A member of the Adnyamathanha, Narungga and Yarliyandi communities, Jason tried a lot of jobs before he found his niche.

"I started out as a teacher, and went from the education department to TAFE, and then on to working with Aboriginal people in the jail system," Jason says.

"Then I went into business with my father, who started Guranda Services, named after his great grandfather."

The business began with cultural tourism, which Jason's brothers have taken over while Jason, as Director of Guranda Services, has branched out into Indigenous community services, working alongside his other business, Incompro.

Guranda and Incompro are consultancy organisations that work for Indigenous organisations. "I also do a lot of work supporting Aboriginal people to establish their own business," Jason says.

To help him in his work, Jason completed an Advanced Diploma of Community Services Management at TAFE SA-Barossa Valley Campus. "I've been working in management since 1994, but had never done any management training or qualification," Jason explains.

Jason's an advocate for vocational education and training.

Through his work, Jason recently ran a project through the Productivity Places Program, which provides training for people in areas of skills needs. Thirty Indigenous people completed qualifications in business management.

### STEP 2: What type of work would suit you?

Using what you've learnt about yourself from STEP 1 above, you can get a general idea of the kind of work you might want to build your career around. Now you can start to match up these ideas about the work that might suit you with different types of occupations. At this stage it is best to think of as many options as possible and investigate areas of interest thoroughly. You will probably find that there is more than one style of work or occupation that is right for you.

#### Using the Type of Work Chart

Read the following descriptions of seven 'type of work' categories carefully before going on to the next stage. Having read through these categories, ask yourself:

- Would I like or dislike this type of work?
- How much would I like or dislike it?

Indicate your likes and dislikes on the **Type of Work Chart** by ticking the appropriate boxes.

You can then go to the **Jobs Chart**, which is a list of occupations by 'type of work' categories.

#### Analytic or scientific

These occupations involve working with ideas to investigate or seek solutions to scientific, technical, social or other issues. Activities include observing, researching, analysing and interpreting results.

The ability to develop theories, apply logic and explore abstract ideas in a specialist area of knowledge is important.

#### Creative or artistic

These occupations involve working with ideas to creatively express, present or perform them. An appreciation of design, style, form, beauty or related concepts used to develop or interpret an idea is important. Activities include writing, painting, singing, dancing, decorating, designing and performing.



Helping or advising

These occupations involve working with people to help, inform, teach or treat them. Activities include discussing personal issues, listening to people's problems and providing advice, instruction, information or treatment to meet their needs.

Practical or mechanical

These occupations involve working with things, using your hands or special tools and equipment to make, fix, install or adjust them.

Activities include practical and physical tasks, which may require an understanding of how equipment or machinery works.

Nature or recreation

These occupations involve working with things in the natural world, such as conservation, handling animals, raising crops or livestock, or sport. Activities include growing and caring for living things, or an involvement with sport, leisure or the environment.

Organising or clerical

These occupations involve working with data to order, process or retrieve facts and figures, or to develop or administer policies and procedures. Activities include organising, using or updating information (such as files or accounts), developing or following procedures or systems, and the planning, budgeting and staffing of an organisation.

Persuading or service

These occupations involve working with people to sell to, influence, motivate, negotiate with or serve them. Activities include selling, promoting or providing goods or services, bargaining or presenting a point of view.

Using the Jobs Chart

Look up the categories for which you ticked 'like a lot' or 'like' on the Type of Work Chart. You should finish up with a list of occupations to explore more thoroughly.

**STEP 3: Researching your potential occupations**

Once you have finished identifying the occupations that you would like to consider, you can begin to explore them by reading the occupation descriptions in the **Job descriptions** section of the Job Guide.

By looking carefully at these entries you may decide that some occupations on your list are not for you. However, if you have very few or no options after reading through the relevant descriptions, consider the following:

- Perhaps you were a bit too 'hard' on certain aspects of some occupations. You might like to take another look at the occupation descriptions.
- Make sure you check out the 'Related Jobs' at the end of each occupation description, as you might find an occupation that better suits your interests.
- Perhaps it is not really your type of work or interest area after all.

You may need to return to the Type of Work Chart.

If looking at these entries has made you even more interested in the occupations (or some of the occupations) on your list, you are ready to do some more in-depth research.

**STEP 4: Other ways to find out about occupations that interest you**

Carefully researching the occupations that remain on your list will help you to clarify a number of things: you will find out what the work and the prospects in the occupation are really like, as well as how realistic and achievable your goals are. It is good to work all this out before you make more definite plans for getting into the study or work area of your choice.

Use the following headings and questions as a guide to continue your research into occupations of interest.

You might like to ask yourself about the:

**Occupations**

- What would a person in the occupation do? Does this interest you?
- What technical and employability skills, knowledge or attributes are required and developed in this occupation?
- What qualifications are desirable/essential for this type of work?
- What is the career progression from the occupation?

**Job requirements**

- What are the duties and responsibilities of the job?
- What personal qualities are necessary to carry out the work?
- What are the hours of work?
- What is the salary range or award rate?
- What do people doing this job like and dislike about it?

**Training and education requirements**

- What pathways could I take to lead me to the work area I have identified?
- Is it possible to enter into an Australian Apprenticeship for the period of training?
- Do I need to study a course at a tertiary institution (e.g. private college, TAFE or university) as part of my pathway?
- How long does the course or qualification take to complete?
- What are the entry requirements for the relevant institutions/courses?
- Do I need work experience to complement my studies?

**Industry**

- Does the industry provide services or products in an area of growth?
- What opportunities for development or progression exist in the industry?

Type of Work Chart

|                         | Like a lot | Like | Unsure | Not keen | Dislike |
|-------------------------|------------|------|--------|----------|---------|
| Analytic or scientific  |            |      |        |          |         |
| Creative or artistic    |            |      |        |          |         |
| Helping or advising     |            |      |        |          |         |
| Practical or mechanical |            |      |        |          |         |
| Nature or recreation    |            |      |        |          |         |
| Organising or clerical  |            |      |        |          |         |
| Persuading or service   |            |      |        |          |         |



## Employers

- Which organisations employ people in this occupation?
- What services and/or products does the organisation offer?
- Where is the organisation located, does it have branches and how long has it been established?
- Who are its competitors?
- Does it offer professional development?
- Does it offer apprenticeships or traineeships for school-leavers or school students?
- What are the future career prospects?

### TIP

*Repeat this kind of exercise every so often because your interests and preferred job options will change as you mature, experience new things or gain new skills.*

There are lots of ways to find out about occupations that interest you. Some of these are outlined below. Have a good look at these suggestions, as you may find answers to the questions above or new ideas to consider.

- **Ask yourself** what occupations and jobs interest you when you watch television, read the newspaper or listen to the radio.
- **Use the resources** of a Centrelink Career Information Centre (see the Study, work and career support section) or your local Centrelink office to gain a more complete picture of occupations.
- **Read** university and TAFE handbooks, career articles and job advertisements in newspapers, and the Job Guide.
- **Contact** companies to ask if they have any information on the type of occupations and opportunities that are available in their company.
- **Talk with** teachers, especially your career adviser; your parents, family and friends; human resources staff in organisations where your occupation may be located; or staff at your nearest Centrelink Career Information Centre or Centrelink office.
- **Look at** videos and DVDs on careers at school or at a Centrelink Career Information Centre or Centrelink office; displays at career expos; and information on the internet (including 'The Facts' section of [www.myfuture.edu.au](http://www.myfuture.edu.au)).
- **Try for yourself** through holiday jobs, work experience schemes, voluntary work, or a casual or part-time job after school or on weekends.
- **Contact professional associations and employer organisations** to obtain career literature. See the Useful addresses section for contact details.
- **Contact Industry Skills Councils or Industry Training Advisory Boards** for advice on education and training requirements and employment prospects. Contact details for Industry Training Advisory Boards and Industry Skills Councils may be included with relevant job profiles in the Job descriptions section, and can also be found in the Useful addresses section.
- **Contact unions** for information about award conditions and the working environment. You should telephone or write to the appropriate union for your area of interest. Contact details for unions may be included with the relevant job profile in the Job descriptions section, or can be found at the Australian Council of Trade Unions (ACTU) website for students at [www.worksite.actu.org.au](http://www.worksite.actu.org.au).

- **Collect job advertisements and position descriptions** to get examples of the various responsibilities and tasks that make up jobs. This will give you a good indication of the skills required and the positions available in your local area.

### TIP

*Remember to be active. Talk to people in the occupation or spend time in a workplace. Ask lots of questions. Get a realistic picture of the occupation so that you can make a good judgment about whether or not it is for you.*

STEP 5: The next stage of building your career

### Deciding

People use different processes to make decisions. Refine your career choices to those that you can really imagine yourself committing to.

One way to help you decide is to number your choices, with 1 for the choice you like best. You may wish to number whole work categories as shown in the Type of Work Chart, or use this system to number occupations you have found in the Jobs Chart.

Most importantly, make sure you talk to others you know who can help you to think through the options.

### Reflecting on your choices

This stage gives you the opportunity to review your investigations so far. Allow yourself time to consider the choices you have made. During this stage, you may like to reflect on what you have discovered about yourself, record your thoughts and feelings, and use this summary to describe the broad career direction you want to take. You can then review this at various stages in the future to see if your interests and your desired direction have changed.

### Planning

By this stage, you will have decided on a broad career direction. Now you can create your career pathway plan so that the next steps to take are clear.

It helps to set specific career goals and plan the steps you need to carry out in order to achieve those goals. A career goal may be the answer to the question, 'What is the next step on my career pathway?'

In order to achieve this goal, you will need a plan of action. When planning the next steps you need to take, you should think about what possible barriers you might need to deal with, what resources you will need and how long it may take to achieve your goal.

### TIP

*Developing a career pathway plan can be difficult to do on your own. You may want to get some help from a career adviser, parent or teacher.*

### Doing

Now is the time to get active. By now you should know the direction you want to head in, have a better understanding of the possible pathways to your goals, and have done some planning.

Although this may seem like the final stage of your journey, as you take the steps towards your goals, you will find more information and gain new insights. Stay focused on your goals and be flexible with them. Often opportunities will arise, which means your plan may need to be adjusted.



It is important that you find time to review your goals and action steps. It is in the 'doing' that your action plan can be monitored, added to or refined.

## Looking towards the future

The *industries* that have projected employment growth to 2014–15 are:

- Health Care and Social Assistance
- Construction
- Education and Training
- Professional, Scientific and Technical Services
- Retail Trade
- Accommodation and Food Services
- Transport, Postal and Warehousing
- Public Administration and Safety
- Financial and Insurance Services
- Mining.

More information on industry employment trends and prospects is available on <http://skillsinfo.gov.au>.

The *occupational clusters* with the largest projected employment growth to 2014–15 are:

- Carers and Aides
- Business, Finance and Human Resource Professionals
- Medical Practitioners and Nurses
- Sales Representatives and Agents
- Education Professionals
- General-Inquiry Clerks, Call Centre, Receptionists
- Hospitality, Retail and Service Managers
- Construction Trades
- Corporate Managers
- Sports, Travel and Personal Service Workers.

More information on occupational employment trends and prospects is available on <http://joboutlook.gov.au>.

There are many emerging technologies that will have a major impact on science and business in the future. Some of these are:

- **biotechnology:** the use of biological discoveries for the development of industrial processes and the production of useful organisms and their products in industries, such as agriculture and pharmaceuticals, waste management and in the creation of renewable energy sources
- **environmental management and materials technology:** the investigation of chemical properties in metals, ceramics, polymers and other materials and the environmental impact of their use in commercial and engineering applications
- **health informatics:** the application of information technologies and computer sciences to accurately use, store, retrieve and exchange information in the health care field
- **information and communication technologies (ICT):** the combining of computers with telephone and internet technologies
- **microelectronics:** the development and use of very small circuits for products such as mobile phones and computers
- **nanotechnology:** the building of, or control over, materials and devices at the level of atoms and molecules, for application in manufacturing, electronics, pharmaceuticals, medicine, textiles, fibres, agriculture, national security, aeronautics and space exploration, energy and the environment
- **telecommunications (including photonics):** the study and application of photons as a medium for transmitting information.

## Skills Need Occupations

A skills need or skills shortage occupation means that employers are unable to, or have great difficulty in, filling vacancies for that occupation.

For more information on skills shortages, visit the Department of Education, Employment and Workplace Relations website [www.deewr.gov.au/skillshortages](http://www.deewr.gov.au/skillshortages).

## Start your own business

Get into enterprise

Starting your own business is something you may not have thought about.

You do not need a degree, or to be good at business studies, or to have any formal experience to start and run a business. These things can be helpful — but they are not necessary. To start with, all you need is to have or develop an idea. A business idea may come from the things that inspire you. What motivates you to work hard? What are you passionate about? It is important to do something you like, as you will work harder to make it a success.

Starting your own business means a lot of hard work, long hours and financial risk. But it can also be the most challenging, rewarding and wonderful experience you will ever undertake. So how do you know if self-employment is the right career direction for you?

There are a lot of services and assistance to help young people who are in or thinking about starting their own businesses. Contact these organisations to find out more:

Commonwealth Business Entry Point

This site has information on licensing, taxation, employment, importing and exporting, and statistics. See [www.business.gov.au](http://www.business.gov.au).

The New Enterprise Incentive Scheme

This government initiative helps eligible unemployed people aged 18 years or over to start and run their own businesses.

See [www.deewr.gov.au/neis](http://www.deewr.gov.au/neis).

Enterprise Network for Young Australians (ENYA)

This not-for-profit organisation supports and promotes the active participation of young people aged 15–30 years in enterprise.

See [www.enya.org.au](http://www.enya.org.au).

The Foundation for Young Australians

This not-for-profit organisation is committed to developing innovative initiatives that support 12–25 year olds. See [www.fya.org.au](http://www.fya.org.au).





# Green careers

More awareness of environmental issues has led to a growing demand in Australia for “green collar workers”. These workers can be found across all industries and at all job levels. They work to protect the environment, or to develop sustainable practices that minimise the environmental impact of commercial and industrial activities.

## **What are green collar jobs? Can they be clearly defined?**

There is some debate as to which jobs are “green” jobs. In the past, the environmental industry was a separate sector, where the only “green” occupations were those involved with activities such as conservation and pollution prevention and control (for example, park rangers or environmental scientists).

However, with advances in technology and a growing awareness of the role that everyone plays in contributing to the impact of society upon the environment, this distinction is no longer as clear.

There is a range of ideas regarding what makes a job “green”. Usually these jobs involve activities to do with maintaining and improving the natural environment, or at least limiting the negative impacts of man-made industry upon the environment. The “green economy” can include traditional conservation-focused occupations (such as natural resource managers or marine biologists) as well as specialised workers across a wide range of industries and occupations, many of which are not traditionally associated with environmental activities. For example, a plumber installing grey water recycling systems, a power generation plant operator working with renewable energy sources or an organic farmer can all be considered “green collar” workers, as their work affects the development of sustainable practices within their industry sector.

## **What other jobs could be categorised as being green?**

There are also many opportunities to work in the “green sector” in roles which may not be directly

involved with environmental sustainability. Green organisations still need people working as accountants, receptionists, sales representatives and in other support roles. So, in this case, while the work of a receptionist may not impact directly on the environment, the work they do in supporting their organisation does contribute towards achieving the “green” goals of their organisation. In this way, such occupational roles can also be considered part of the “green economy”.

## **How you can be green in your career**

There are many ways to pursue a green career. As environmental issues are likely to continue to have a significant impact on the way people live and work, it is increasingly important to consider the “sustainability value” of your own career path. When you consider your options and are making decisions on your chosen career path, think about whether your decisions fit in with the emerging “green economy”. Some career advisers are beginning to specialise in providing advice about green career paths and will be able to provide you with more information about your options. There are also green recruitment companies that specialise in helping people find work within the green sector.

## **What the future holds for green jobs**

It has been suggested that in the future green work will become part of the everyday work activities of almost all workers, in much the same way that IT now plays an essential role in people’s daily work and family lives. Until then, existing workers in industries not traditionally a part of the “green economy” are increasingly required to learn about and introduce sustainable work practices, such as recycling and energy-saving measures. Increased uptake of these practices within homes and workplaces is also generating increased demand for workers in these fields, which may lead to considerable growth in the “green economy” in the near to medium future. It is worth considering the impact of the “green economy” on every day work activities when researching your chosen career.

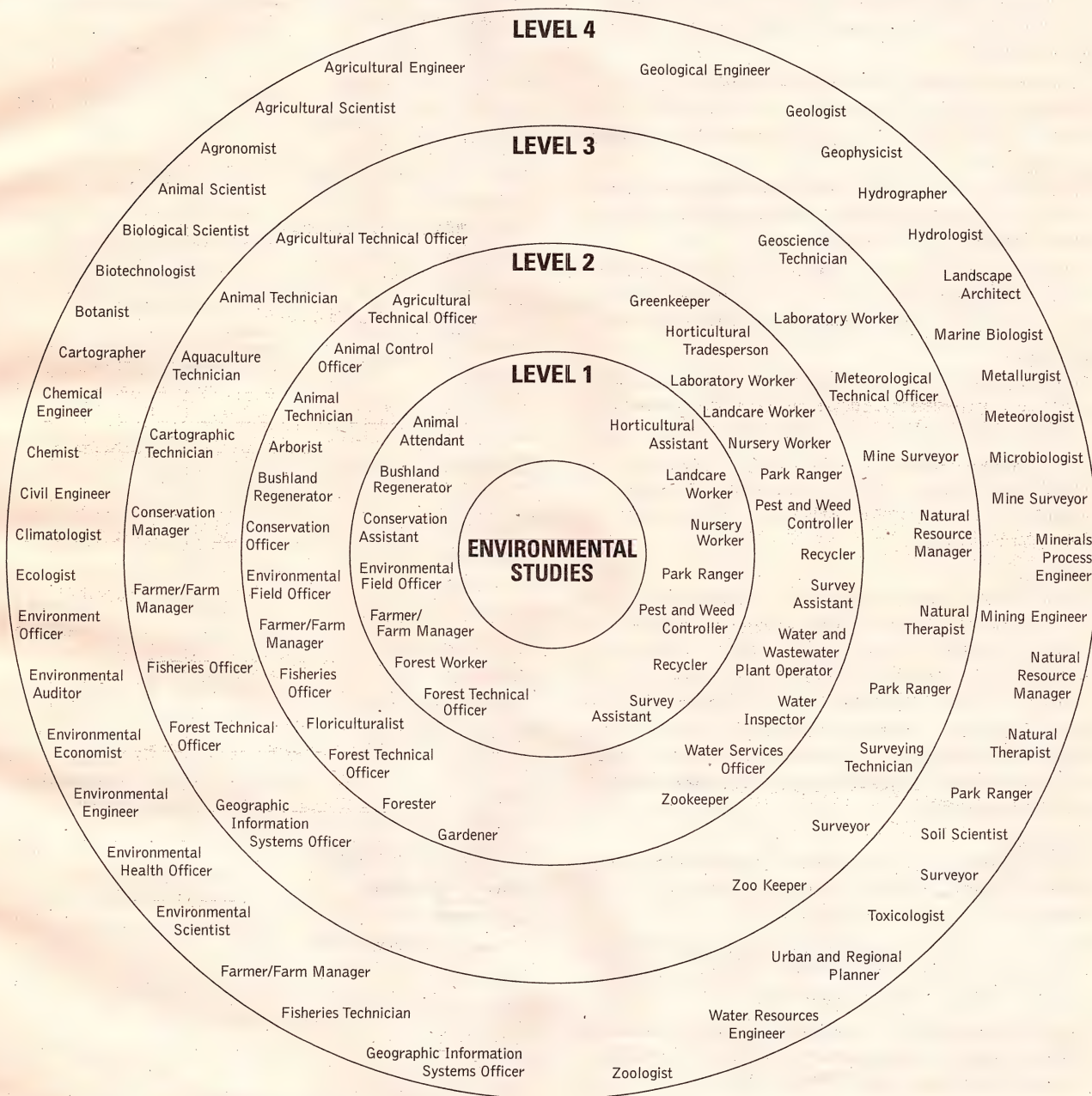




Australian Government

# Do you enjoy or are you good at ENVIRONMENTAL STUDIES?

Have you considered the following occupations?



## Usual training requirements

**LEVEL 1** Usually has a skill level equal to the completion of Year 10, the Senior Secondary Certificate of Education, Certificate I or Certificate II qualification. Australian Apprenticeships may be offered at this level.

**LEVEL 2** Usually has a skill level equal to a Certificate III or IV or at least three years relevant experience. Australian Apprenticeships may be offered at this level.

**LEVEL 3** Usually requires a level of skill equal to a Diploma or Advanced Diploma. Study is often undertaken through TAFE or Registered Training Organisations. Some universities offer studies at this level.

**LEVEL 4** Usually requires the completion of a Bachelor Degree or higher qualification. Study is often undertaken at university.

This chart shows a selection of jobs that have some relation to the subject of **ENVIRONMENTAL STUDIES**.

For further information visit [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) and [www.myfuture.edu.au](http://www.myfuture.edu.au). The four education and training levels are to be used as a guide only. These levels indicate the most common education and/or entry requirements for these jobs.





## Jobs Chart

How to use the Jobs Chart

- To get the most out of the Jobs Chart, you should follow the steps on pages 7–11.
- An explanation of the type of work categories is on page 8.

Skill levels

### Skill level 1

Most occupations in this group have a level of skill equal to a certificate I or compulsory secondary education. Some occupations offering an entry pathway through an Australian Apprenticeship fall into this category.

For some occupations a short period of on-the-job training may be required in addition to or instead of the formal qualification. In some cases, no formal qualification or on-the-job training may be required.

### Skill level 2

Most occupations in this group have a level of skill equal to a certificate II or III. Some occupations offering a pathway through an Australian Apprenticeship fall into this category.

At least one year of relevant experience may be done in place of the formal qualifications previously mentioned. In some cases relevant experience may be required in addition to the formal qualification.

### Skill level 3

Most occupations in this group require a level of skill equal to a certificate III or certificate IV. Some occupations offering a pathway through an Australian Apprenticeship fall into this category.

At least three years of relevant experience may be done in place of the formal qualifications previously mentioned. In some cases relevant experience and/or on-the-job training may be required in addition to the formal qualification.

### Skill level 4

Most occupations in this group require the completion of an associate degree, advanced diploma or diploma. Study is often undertaken at a Registered Training Organisation, including TAFE institutes. Some occupations offering a pathway through an Australian Apprenticeship fall into this category. Some universities also offer studies at this level.

At least three years of relevant experience may be done in place of the formal qualifications previously mentioned. In some cases, relevant experience and/or on-the-job training may be required in addition to the formal qualification.

### Skill level 5

Most occupations in this group require the completion of a bachelor degree or higher qualification. Study is usually undertaken at university and other higher education providers.

At least five years of relevant experience may be undertaken in place of the formal qualification. In some cases, relevant experience is required in addition to the formal qualification.

**Note: The classification of occupations into the five skill levels required for entry should be used as a guide only. It may be possible to enter some jobs at different levels.**

✱ The tree symbol symbolises a 'green collar job'.

| Analytic or Scientific                       | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i> |       |   |   |   |   |
| Accountant                                   |       |   |   | ✓ | ✓ |
| Actuary                                      |       |   |   |   | ✓ |
| Acupuncturist                                |       |   |   | ✓ | ✓ |
| Aerospace Engineer                           |       |   |   |   | ✓ |
| Agricultural and Resource Economist          |       |   |   |   | ✓ |
| Agricultural Engineer ✱                      |       |   |   |   | ✓ |
| Agricultural Scientist ✱                     |       |   |   |   | ✓ |
| Air Force General Entrant                    | ✓     |   |   |   |   |
| Air Force Officer                            |       |   |   | ✓ | ✓ |
| Air Traffic Controller                       |       |   |   |   | ✓ |
| Aircraft Maintenance Engineer                |       | ✓ | ✓ |   |   |
| Anaesthetic Technician                       |       |   | ✓ | ✓ |   |
| Analyst (Information Technology)             |       |   |   |   | ✓ |
| Animal Technician ✱                          |       | ✓ | ✓ | ✓ |   |
| Anthropologist                               |       |   |   |   | ✓ |
| Aquaculture Technician ✱                     |       | ✓ | ✓ | ✓ |   |
| Archaeologist                                |       |   |   |   | ✓ |
| Architect                                    |       |   |   |   | ✓ |
| Army Officer                                 |       |   |   | ✓ | ✓ |
| Army Soldier                                 | ✓     | ✓ |   |   |   |
| Army Soldier — Technician                    |       |   | ✓ | ✓ |   |
| Art Therapist                                |       |   |   |   | ✓ |
| Astronomer                                   |       |   |   |   | ✓ |
| Audiologist                                  |       |   |   |   | ✓ |
| Audiometrist                                 |       |   | ✓ |   |   |
| Automotive Electrician                       |       | ✓ | ✓ |   |   |
| Bicycle Technician                           | ✓     | ✓ |   |   |   |
| Biochemist                                   |       |   |   |   | ✓ |
| Biomedical Engineer                          |       |   |   |   | ✓ |
| Biotechnologist ✱                            |       |   |   |   | ✓ |
| Bookmaker                                    | ✓     |   |   |   |   |
| Botanist ✱                                   |       |   |   |   | ✓ |
| Building Surveyor                            |       |   |   | ✓ | ✓ |
| Business (Systems) Analyst                   |       |   |   |   | ✓ |
| Cardiac Technologist                         |       |   |   |   | ✓ |
| Cartographer ✱                               |       |   |   | ✓ | ✓ |
| Cartographic Technician ✱                    |       |   |   | ✓ |   |
| Cheesemaker                                  |       | ✓ |   |   |   |
| Chemical Engineer ✱                          |       |   |   |   | ✓ |
| Chemist ✱                                    |       |   |   |   | ✓ |
| Chiropractor                                 |       |   |   |   | ✓ |
| Civil and Structural Engineering Associate ✱ |       |   |   | ✓ |   |
| Civil Engineer ✱                             |       |   |   |   | ✓ |
| Clinical Coder                               | ✓     |   |   |   |   |
| Company Secretary                            | ✓     | ✓ | ✓ | ✓ | ✓ |
| Computer Engineer                            |       |   |   |   | ✓ |
| Computer Systems Auditor                     |       |   |   |   | ✓ |
| Conservator                                  |       |   |   |   | ✓ |
| Consumer Scientist                           |       |   |   |   | ✓ |
| Criminologist                                |       |   |   |   | ✓ |



| Analytic or Scientific                             | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Dental Technician                                  |       |   |   | ✓ | ✓ |
| Dentist  |       |   |   |   | ✓ |
| Dietitian  |       |   |   |   | ✓ |
| Dispensary Technician                              | ✓     | ✓ | ✓ |   |   |
| Economist  |       |   |   |   | ✓ |
| Electrical Engineer                                |       |   |   |   | ✓ |
| Electrical Engineering Associate                   |       |   |   | ✓ |   |
| Electrical Linesperson                             |       | ✓ |   |   |   |
| Electrical or Electronics Engineering Technologist |       |   |   |   | ✓ |
| Electrician  |       | ✓ | ✓ |   |   |
| Electronics Engineer                               |       |   |   |   | ✓ |
| Electronics Engineering Associate                  |       |   |   | ✓ |   |
| Engine Reconditioner                               |       | ✓ | ✓ |   |   |
| Engineering Tradesperson — Mechanical              |       | ✓ |   |   |   |
| Environmental Health Officer 幸                     |       |   |   |   | ✓ |
| Environmental Scientist 幸                          |       |   |   |   | ✓ |
| Financial Dealer and Broker                        |       |   |   |   | ✓ |
| Fisheries Officer 幸                                |       | ✓ | ✓ | ✓ |   |
| Food Technologist                                  |       |   |   |   | ✓ |
| Forensic Scientist                                 |       |   |   |   | ✓ |
| Forest Technical Officer 幸                         | ✓     | ✓ | ✓ | ✓ | ✓ |
| Forester 幸   |       |   |   |   | ✓ |
| Games Developer                                    |       |   | ✓ | ✓ | ✓ |
| Geographer   |       |   |   |   | ✓ |
| Geographic Information Systems Officer 幸           |       |   |   | ✓ | ✓ |
| Geological Engineer 幸                              |       |   |   |   | ✓ |
| Geologist 幸  |       |   |   |   | ✓ |
| Geophysicist 幸                                     |       |   |   |   | ✓ |
| Geoscience Technician 幸                            |       |   |   | ✓ |   |
| Health Information Manager                         |       |   |   |   | ✓ |
| Health Promotion Officer                           |       |   |   |   | ✓ |
| Historian  |       |   |   |   | ✓ |
| Home Economist                                     |       |   |   |   | ✓ |
| Hospital Administrator                             |       |   |   |   | ✓ |
| Human Resources Officer                            | ✓     | ✓ | ✓ | ✓ | ✓ |
| Hydrographer 幸                                     |       |   | ✓ | ✓ | ✓ |
| Industrial Designer                                |       |   |   |   | ✓ |
| Industrial Engineer                                |       |   |   |   | ✓ |
| Industrial Engineering Technologist                |       |   |   |   | ✓ |
| Information Technology Administrator               |       |   |   | ✓ | ✓ |
| Information Technology Support Technician          |       | ✓ | ✓ | ✓ |   |
| Instrument Fitter                                  |       | ✓ | ✓ |   |   |
| Journalist   |       |   |   | ✓ | ✓ |
| Laboratory Worker 幸                                |       | ✓ | ✓ | ✓ |   |
| Landscape Architect 幸                              |       |   |   |   | ✓ |
| Lawyer   |       |   |   | ✓ | ✓ |
| Lift Electrician                                   |       | ✓ | ✓ |   |   |
| Light Engine Mechanic                              |       | ✓ | ✓ |   |   |

| Analytic or Scientific                 | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Light Vehicle Motor Mechanic           |       | ✓ |   |   |   |
| Management Consultant                  |       |   |   |   | ✓ |
| Marine Biologist 幸                     |       |   |   |   | ✓ |
| Marine Engineer                        |       |   | ✓ | ✓ |   |
| Marine Surveyor                        |       |   |   | ✓ |   |
| Market Researcher                      |       |   |   |   | ✓ |
| Materials Engineer                     |       |   |   |   | ✓ |
| Mathematician                          |       |   |   |   | ✓ |
| Mechanical Engineer                    |       |   |   |   | ✓ |
| Mechanical Engineering Associate       |       |   |   | ✓ |   |
| Mechanical Engineering Technologist    |       |   |   |   | ✓ |
| Mechatronic Engineer                   |       |   |   |   | ✓ |
| Medical Laboratory Technician          |       |   |   | ✓ |   |
| Medical Practitioner                   |       |   |   |   | ✓ |
| Medical Scientist                      |       |   |   |   | ✓ |
| Metallurgical Technician               |       |   |   | ✓ |   |
| Metallurgist 幸                         |       |   |   |   | ✓ |
| Meteorological Technical Officer 幸     |       |   |   | ✓ |   |
| Meteorologist 幸                        |       |   |   |   | ✓ |
| Microbiologist 幸                       |       |   |   |   | ✓ |
| Midwife                                |       |   |   |   | ✓ |
| Mining Engineer 幸                      |       |   |   |   | ✓ |
| Museum Curator                         |       |   |   |   | ✓ |
| Museum Officer                         |       | ✓ |   |   |   |
| Natural Resource Manager 幸             |       |   |   | ✓ | ✓ |
| Natural Therapist 幸                    |       |   |   | ✓ | ✓ |
| Naval Architect                        |       |   |   |   | ✓ |
| Navy Officer                           |       |   |   | ✓ | ✓ |
| Navy Sailor                            | ✓     | ✓ |   |   |   |
| Navy Technical Sailor                  |       |   | ✓ | ✓ |   |
| Non-destructive Testing Technician     |       |   |   | ✓ |   |
| Nuclear Medicine Technologist          |       |   |   |   | ✓ |
| Nurse — Registered                     |       |   |   |   | ✓ |
| Nutritionist                           |       |   |   |   | ✓ |
| Occupational Health and Safety Officer |       |   | ✓ | ✓ | ✓ |
| Occupational Therapist                 |       |   |   |   | ✓ |
| Optometrist                            |       |   |   |   | ✓ |
| Oral Health Therapist                  |       |   |   | ✓ | ✓ |
| Orientation and Mobility Instructor    |       |   |   |   | ✓ |
| Orthoptist                             |       |   |   |   | ✓ |
| Osteopath                              |       |   |   |   | ✓ |
| Patent Examiner                        |       |   |   |   | ✓ |
| Petroleum and Gas Plant Operator       | ✓     | ✓ |   |   |   |
| Petroleum Engineer                     |       |   |   |   | ✓ |
| Pharmacist                             |       |   |   |   | ✓ |
| Pharmacologist                         |       |   |   |   | ✓ |
| Photographer                           | ✓     | ✓ | ✓ | ✓ | ✓ |
| Physicist                              |       |   |   |   | ✓ |
| Physiotherapist                        |       |   |   |   | ✓ |
| Pilot                                  |       |   | ✓ | ✓ | ✓ |





| Analytic or Scientific                        | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| Podiatrist                                    |       |   |   |   | ✓ |
| Police Officer — Australian Federal Police    | ✓     | ✓ | ✓ | ✓ | ✓ |
| Political Scientist                           |       |   |   |   | ✓ |
| Private Investigator                          | ✓     | ✓ |   |   |   |
| Programmer (Information Technology)           |       |   |   | ✓ | ✓ |
| Prosthetist/Orthotist                         |       |   |   |   | ✓ |
| Psychologist                                  |       |   |   |   | ✓ |
| Public Servant — Australian Public Service    | ✓     | ✓ | ✓ | ✓ | ✓ |
| Public Servant — State Government             | ✓     | ✓ | ✓ | ✓ | ✓ |
| Quality Assurance Inspector                   | ✓     | ✓ | ✓ | ✓ |   |
| Quantity Surveyor                             |       |   |   |   | ✓ |
| Radiation Therapist                           |       |   |   |   | ✓ |
| Refrigeration and Airconditioning Mechanic    |       | ✓ |   |   |   |
| Research Officer                              |       |   |   |   | ✓ |
| Sales Representative (Information Technology) |       | ✓ | ✓ | ✓ | ✓ |
| Sociologist                                   |       |   |   |   | ✓ |
| Speech Pathologist                            |       |   |   |   | ✓ |
| Sports Scientist                              |       |   |   |   | ✓ |
| Statistician                                  |       |   |   |   | ✓ |
| Surveying Technician 幸                        |       |   |   | ✓ |   |
| Surveyor 幸                                    |       |   |   | ✓ | ✓ |
| Systems Designer (Information Technology)     |       |   |   |   | ✓ |
| Telecommunications Technician                 |       | ✓ | ✓ |   |   |
| Textile Technician                            |       |   | ✓ |   |   |
| Tissue Culture Technician                     | ✓     | ✓ | ✓ | ✓ |   |
| Toxicologist 幸                                |       |   |   |   | ✓ |
| Train and Network Controller                  | ✓     |   |   |   |   |
| University Lecturer                           |       |   |   |   | ✓ |
| Urban and Regional Planner 幸                  |       |   |   |   | ✓ |
| Vehicle Body Builder                          |       | ✓ |   |   |   |
| Veterinarian                                  |       |   |   |   | ✓ |
| Viticulturalist                               |       |   |   |   | ✓ |
| Water Services Officer 幸                      |       | ✓ |   |   |   |
| Winemaker                                     |       |   |   |   | ✓ |
| Zoologist                                     |       |   |   |   | ✓ |

| Creative or Artistic                         | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i> |       |   |   |   |   |
| Actor  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Advertising Account Executive                |       |   |   |   | ✓ |
| Aerospace Engineer                           |       |   |   |   | ✓ |
| Agricultural Engineer 幸                      |       |   |   |   | ✓ |
| Analyst (Information Technology)             |       |   |   |   | ✓ |
| Archaeologist                                |       |   |   |   | ✓ |
| Architect                                    |       |   |   |   | ✓ |
| Architectural Technician                     |       |   | ✓ | ✓ |   |
| Artist                                       | ✓     | ✓ | ✓ | ✓ | ✓ |
| Arts Administrator                           |       |   |   |   | ✓ |

| Creative or Artistic                     | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Audiovisual Technician                   | ✓     | ✓ | ✓ | ✓ |   |
| Binder and Finisher                      |       | ✓ |   |   |   |
| Body Artist                              | ✓     | ✓ |   |   | ✓ |
| Cabinetmaker                             |       | ✓ | ✓ |   |   |
| Cartographer 幸                           |       |   |   | ✓ | ✓ |
| Cartographic Technician 幸                |       |   |   | ✓ |   |
| Chef                                     |       | ✓ | ✓ |   |   |
| Chemical Engineer                        |       |   |   |   | ✓ |
| Civil Engineer                           |       |   |   |   | ✓ |
| Clothing Patternmaker                    |       |   | ✓ |   |   |
| Confectioner                             |       | ✓ |   |   |   |
| Conservator                              |       |   |   |   | ✓ |
| Cook                                     | ✓     | ✓ |   |   |   |
| Copywriter                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Craftsperson                             | ✓     | ✓ | ✓ | ✓ | ✓ |
| Cultural Heritage Officer                |       |   |   |   | ✓ |
| Dancer                                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Desktop Publisher                        | ✓     | ✓ |   |   |   |
| Editor                                   |       |   |   |   | ✓ |
| Electrical Engineer                      |       |   |   |   | ✓ |
| Electronics Engineer                     |       |   |   |   | ✓ |
| Entertainer                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Fashion Coordinator                      |       | ✓ | ✓ | ✓ |   |
| Fashion Designer                         |       | ✓ | ✓ | ✓ | ✓ |
| Film and Television Camera Operator      | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film and Television Editor               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film and Television Lighting Operator    | ✓     | ✓ | ✓ | ✓ |   |
| Film and Television Producer's Assistant | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film, Stage and Television Director      | ✓     | ✓ | ✓ | ✓ | ✓ |
| Florist                                  |       | ✓ | ✓ |   |   |
| Games Developer                          |       |   | ✓ | ✓ | ✓ |
| Graphic Designer                         |       |   |   | ✓ | ✓ |
| Graphic Prepress Tradesperson            |       | ✓ |   |   |   |
| Hairdresser                              |       |   | ✓ |   |   |
| Home Economist                           |       |   |   |   | ✓ |
| Illustrator                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Industrial Designer                      |       |   |   |   | ✓ |
| Industrial Engineer                      |       |   |   |   | ✓ |
| Interior Decorator                       |       | ✓ | ✓ | ✓ |   |
| Interior Designer                        |       |   |   | ✓ | ✓ |
| Jeweller                                 |       | ✓ | ✓ | ✓ | ✓ |
| Journalist                               |       |   |   | ✓ | ✓ |
| Landscape Architect 幸                    |       |   |   |   | ✓ |
| Leather Goods Maker                      | ✓     | ✓ |   |   |   |
| Make-up Artist                           | ✓     | ✓ |   |   |   |
| Marketing Officer                        |       |   |   | ✓ | ✓ |
| Materials Engineer                       |       |   |   |   | ✓ |
| Mechanical Engineer                      |       |   |   |   | ✓ |
| Media Presenter                          | ✓     | ✓ | ✓ | ✓ | ✓ |
| Milliner                                 |       | ✓ |   |   |   |
| Mining Engineer 幸                        |       |   |   |   | ✓ |



| Creative or Artistic                       | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Model                                      | ✓     |   |   |   |   |
| Model Maker                                | ✓     | ✓ | ✓ | ✓ |   |
| Multimedia Developer                       |       |   | ✓ | ✓ | ✓ |
| Museum Attendant                           |       | ✓ | ✓ |   |   |
| Museum Curator                             |       |   |   |   | ✓ |
| Museum Officer                             |       | ✓ |   |   |   |
| Music Therapist                            |       |   |   |   | ✓ |
| Musician                                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Nail Technician                            | ✓     | ✓ |   |   |   |
| Naval Architect                            |       |   |   |   | ✓ |
| Pastrycook                                 |       | ✓ |   |   |   |
| Photographer                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Picture Framer                             | ✓     | ✓ |   |   |   |
| Production Crew Member                     | ✓     | ✓ | ✓ |   |   |
| Projectionist                              | ✓     | ✓ |   |   |   |
| Public Servant — Australian Public Service | ✓     | ✓ | ✓ | ✓ | ✓ |
| Publisher                                  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Recreation Officer                         |       | ✓ | ✓ | ✓ | ✓ |
| Screen Printer/Stencil Preparer            |       | ✓ |   |   |   |
| Set Designer                               |       |   |   | ✓ | ✓ |
| Signmaker                                  |       | ✓ | ✓ |   |   |
| Sound Technician                           | ✓     | ✓ | ✓ | ✓ |   |
| Stage Manager                              |       |   |   | ✓ | ✓ |
| Stonemason                                 |       | ✓ |   |   |   |
| Stunt Performer                            | ✓     |   |   |   |   |
| Taxidermist                                | ✓     |   |   |   |   |
| Teacher — Art                              |       |   |   |   | ✓ |
| Teacher — Music                            |       |   |   |   | ✓ |
| Textile Designer                           |       |   | ✓ | ✓ | ✓ |
| Theatre Mechanist                          | ✓     | ✓ | ✓ | ✓ |   |
| Theatrical Costume Maker and Designer      | ✓     | ✓ | ✓ | ✓ | ✓ |
| Tourist Information Officer                | ✓     | ✓ | ✓ |   |   |
| Upholsterer                                |       | ✓ |   |   |   |
| Vehicle Body Builder                       |       | ✓ |   |   |   |
| Vehicle Painter                            |       | ✓ |   |   |   |
| Visual Merchandiser                        | ✓     | ✓ | ✓ | ✓ |   |
| Web Designer/Developer                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Wood Machinist                             |       | ✓ |   |   |   |
| Writer                                     | ✓     | ✓ | ✓ | ✓ | ✓ |

| Helping or Advising                             | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i>    |       |   |   |   |   |
| Aboriginal/Torres Strait Islander Health Worker |       | ✓ | ✓ | ✓ |   |
| Acupuncturist                                   |       |   |   | ✓ | ✓ |
| Archivist                                       |       |   |   |   | ✓ |
| Art Therapist                                   |       |   |   |   | ✓ |
| Audiologist                                     |       |   |   |   | ✓ |

| Helping or Advising                       | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| Audiometrist                              |       |   | ✓ |   |   |
| Beauty Therapist                          |       |   | ✓ | ✓ |   |
| Bicycle Technician                        | ✓     | ✓ |   |   |   |
| Contact Centre Operator                   | ✓     | ✓ | ✓ |   |   |
| Cardiac Technologist                      |       |   |   |   | ✓ |
| Career Adviser                            |       |   |   |   | ✓ |
| Child Care Coordinator                    |       |   |   | ✓ | ✓ |
| Child Care Worker                         |       | ✓ | ✓ | ✓ |   |
| Chiropractor                              |       |   |   |   | ✓ |
| Civil Celebrant                           | ✓     | ✓ | ✓ |   |   |
| Community Worker                          |       | ✓ | ✓ | ✓ | ✓ |
| Consumer Scientist                        |       |   |   |   | ✓ |
| Counsellor                                | ✓     | ✓ | ✓ | ✓ | ✓ |
| Customs Broker                            |       | ✓ | ✓ | ✓ |   |
| Debt Collector                            | ✓     | ✓ |   |   |   |
| Dental Assistant                          |       | ✓ | ✓ |   |   |
| Dental Hygienist                          |       |   |   | ✓ | ✓ |
| Dentist                                   |       |   |   |   | ✓ |
| Dietary Aide                              | ✓     | ✓ |   |   |   |
| Dietitian                                 |       |   |   |   | ✓ |
| Disability Services Instructor            |       |   |   | ✓ | ✓ |
| Dispensary Technician                     | ✓     | ✓ | ✓ |   |   |
| Diversional Therapist                     |       |   |   | ✓ | ✓ |
| Dog Trainer                               | ✓     | ✓ |   |   |   |
| Driving Instructor                        |       |   | ✓ |   |   |
| Education Aide                            | ✓     | ✓ |   |   |   |
| Family Day Carer                          |       | ✓ |   |   |   |
| Financial Dealer's Assistant              |       | ✓ | ✓ | ✓ |   |
| Fitness Instructor                        |       | ✓ | ✓ | ✓ |   |
| Guide Dog Instructor                      |       |   |   |   | ✓ |
| Health Promotion Officer                  |       |   |   |   | ✓ |
| Horse Trainer                             | ✓     | ✓ | ✓ | ✓ |   |
| Hospital Administrator                    |       |   |   |   | ✓ |
| House Parent                              | ✓     |   |   |   |   |
| Indigenous Community Liaison Officer      | ✓     | ✓ |   |   |   |
| Information Technology Administrator      |       |   |   | ✓ | ✓ |
| Information Technology Educator           |       |   |   |   | ✓ |
| Information Technology Support Technician |       | ✓ | ✓ | ✓ |   |
| Insurance Agent                           | ✓     | ✓ | ✓ | ✓ |   |
| Interpreter                               |       |   |   | ✓ | ✓ |
| Lawyer                                    |       |   |   | ✓ | ✓ |
| Librarian                                 |       |   |   |   | ✓ |
| Library Assistant                         | ✓     | ✓ | ✓ |   |   |
| Library Technician                        |       |   |   | ✓ |   |
| Lifeguard                                 | ✓     |   |   |   |   |
| Local Government Inspector                | ✓     | ✓ | ✓ |   |   |
| Management Consultant                     |       |   |   |   | ✓ |
| Massage Therapist                         |       |   | ✓ | ✓ |   |
| Medical Imaging Technologist              |       |   |   |   | ✓ |
| Medical Practitioner                      |       |   |   |   | ✓ |





| Helping or Advising                        | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Midwife                                    |       |   |   |   | ✓ |
| Multimedia Developer                       |       |   | ✓ | ✓ | ✓ |
| Museum Attendant                           |       | ✓ | ✓ |   |   |
| Music Therapist                            |       |   |   |   | ✓ |
| Nanny                                      | ✓     | ✓ | ✓ | ✓ |   |
| Natural Therapist 幸                        |       |   |   | ✓ | ✓ |
| Nuclear Medicine Technologist              |       |   |   |   | ✓ |
| Nurse — Enrolled                           |       |   | ✓ | ✓ |   |
| Nurse — Registered                         |       |   |   |   | ✓ |
| Nutritionist                               |       |   |   |   | ✓ |
| Occupational Health and Safety Officer     |       |   | ✓ | ✓ | ✓ |
| Occupational Therapist                     |       |   |   |   | ✓ |
| Optical Dispenser                          |       |   | ✓ |   |   |
| Optometrist                                |       |   |   |   | ✓ |
| Oral Health Therapist                      |       |   |   | ✓ | ✓ |
| Orientation and Mobility Instructor        |       |   |   |   | ✓ |
| Orthoptist                                 |       |   |   |   | ✓ |
| Osteopath                                  |       |   |   |   | ✓ |
| Paramedic                                  |       |   |   | ✓ | ✓ |
| Park Ranger 幸                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Parliamentarian                            | ✓     | ✓ | ✓ | ✓ | ✓ |
| Personal Care Worker                       | ✓     | ✓ | ✓ |   |   |
| Pharmacist                                 |       |   |   |   | ✓ |
| Physiotherapist                            |       |   |   |   | ✓ |
| Podiatrist                                 |       |   |   |   | ✓ |
| Police Officer — Australian Federal Police | ✓     | ✓ | ✓ | ✓ | ✓ |
| Police Officer — State                     |       |   |   | ✓ | ✓ |
| Probation and Parole Officer               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Prosthetist/Orthotist                      |       |   |   |   | ✓ |
| Psychologist                               |       |   |   |   | ✓ |
| Public Servant — Australian Public Service | ✓     | ✓ | ✓ | ✓ | ✓ |
| Public Servant — State Government          | ✓     | ✓ | ✓ | ✓ | ✓ |
| Radiation Therapist                        |       |   |   |   | ✓ |
| Radio Despatcher                           | ✓     |   |   |   |   |
| Recreation Officer                         |       | ✓ | ✓ | ✓ | ✓ |
| Recruitment Consultant                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Rehabilitation Counsellor                  |       |   |   |   | ✓ |
| Religious Leader                           | ✓     | ✓ | ✓ | ✓ | ✓ |
| Research Officer                           |       |   |   |   | ✓ |
| Social Worker                              |       |   |   |   | ✓ |
| Special Care Worker                        | ✓     | ✓ | ✓ |   |   |
| Speech Pathologist                         |       |   |   |   | ✓ |
| Sports Coach                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Sports Scientist                           |       |   |   |   | ✓ |
| Strata Managing Agent                      | ✓     | ✓ | ✓ | ✓ |   |
| Teacher — Art                              |       |   |   |   | ✓ |
| Teacher — Early Childhood                  |       |   |   |   | ✓ |
| Teacher — English as a Second Language     |       |   |   |   | ✓ |
| Teacher — Music                            |       |   |   |   | ✓ |
| Teacher — Physical Education               |       |   |   |   | ✓ |

| Helping or Advising                      | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Teacher — Primary                        |       |   |   |   | ✓ |
| Teacher — Secondary                      |       |   |   |   | ✓ |
| Teacher — Special Education              |       |   |   |   | ✓ |
| Technical and Further Education Lecturer |       |   |   | ✓ | ✓ |
| Therapy Aide                             | ✓     | ✓ | ✓ |   |   |
| Tour Guide                               | ✓     | ✓ | ✓ |   |   |
| Tourist Information Officer              | ✓     | ✓ | ✓ |   |   |
| Trade Union Official                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Training Officer                         |       |   |   |   | ✓ |
| Translator                               |       |   |   | ✓ | ✓ |
| Transport Administrator                  |       |   | ✓ | ✓ | ✓ |
| Transport Services Officer               | ✓     |   |   |   |   |
| Trichologist                             |       |   | ✓ |   |   |
| University Lecturer                      |       |   |   |   | ✓ |
| Usher                                    | ✓     | ✓ |   |   |   |
| Veterinarian                             |       |   |   |   | ✓ |
| Veterinary Nurse                         |       |   | ✓ |   |   |
| Weight Loss Counsellor                   | ✓     | ✓ |   |   |   |
| Welfare Worker                           |       |   |   | ✓ | ✓ |
| Youth Worker                             |       | ✓ | ✓ | ✓ | ✓ |

| Nature or Recreation                         | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i> |       |   |   |   |   |
| Agricultural Engineer 幸                      |       |   |   |   | ✓ |
| Agricultural Scientist 幸                     |       |   |   |   | ✓ |
| Agricultural Technical Officer 幸             |       |   | ✓ | ✓ | ✓ |
| Animal Attendant 幸                           | ✓     | ✓ |   |   |   |
| Animal Technician 幸                          |       | ✓ | ✓ | ✓ |   |
| Aquaculture Technician 幸                     |       | ✓ | ✓ | ✓ |   |
| Beekeeper                                    | ✓     |   |   |   |   |
| Biotechnologist 幸                            |       |   |   |   | ✓ |
| Bookmaker                                    | ✓     |   |   |   |   |
| Botanist 幸                                   |       |   |   |   | ✓ |
| Bus Driver                                   | ✓     | ✓ |   |   |   |
| Caravan Park Attendant                       | ✓     | ✓ |   |   |   |
| Coxswain                                     |       | ✓ |   |   |   |
| Cultural Heritage Officer                    |       |   |   |   | ✓ |
| Deck Hand                                    | ✓     | ✓ |   |   |   |
| Diver  | ✓     | ✓ | ✓ | ✓ |   |
| Dog Trainer                                  | ✓     | ✓ |   |   |   |
| Dogger                                       | ✓     | ✓ |   |   |   |
| Environmental Engineer 幸                     |       |   |   |   | ✓ |
| Environmental Scientist 幸                    |       |   |   |   | ✓ |
| Farm Hand                                    | ✓     | ✓ |   |   |   |
| Farmer/Farm Manager 幸                        | ✓     | ✓ | ✓ | ✓ | ✓ |
| Farrier                                      |       | ✓ |   |   |   |
| Fish Farm Hand                               | ✓     | ✓ |   |   |   |
| Fisheries Officer 幸                          |       | ✓ | ✓ | ✓ |   |
| Fitness Instructor                           |       | ✓ | ✓ | ✓ |   |



| Nature or Recreation                       | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Forest Technical Officer 幸                 | ✓     | ✓ | ✓ | ✓ | ✓ |
| Forest Worker 幸                            | ✓     | ✓ |   |   |   |
| Forester 幸                                 |       |   |   |   | ✓ |
| Fruit and Vegetable Picker                 | ✓     |   |   |   |   |
| Gaming Worker                              | ✓     | ✓ |   |   |   |
| Geological Engineer 幸                      |       |   |   |   | ✓ |
| Geologist 幸                                |       |   |   |   | ✓ |
| Geophysicist 幸                             |       |   |   |   | ✓ |
| Guide Dog Instructor                       |       |   |   |   | ✓ |
| Horse Manager                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Horse Trainer                              | ✓     | ✓ | ✓ | ✓ |   |
| Horticultural Assistant 幸                  | ✓     | ✓ |   |   |   |
| Horticultural Tradesperson 幸               |       | ✓ |   |   |   |
| Hydrographer 幸                             |       |   | ✓ | ✓ | ✓ |
| Jackaroo                                   | ✓     | ✓ | ✓ |   |   |
| Jockey                                     |       |   | ✓ |   |   |
| Land Economist                             |       |   |   |   | ✓ |
| Landcare Worker 幸                          | ✓     | ✓ |   |   |   |
| Landscape Architect 幸                      |       |   |   |   | ✓ |
| Lifeguard                                  | ✓     |   |   |   |   |
| Marine Biologist 幸                         |       |   |   |   | ✓ |
| Massage Therapist                          |       |   | ✓ | ✓ |   |
| Microbiologist 幸                           |       |   |   |   | ✓ |
| Natural Resource Manager 幸                 |       |   |   | ✓ | ✓ |
| Park Ranger 幸                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Pharmacologist                             |       |   |   |   | ✓ |
| Primary Products Inspector                 |       | ✓ | ✓ |   |   |
| Public Servant — Australian Public Service | ✓     | ✓ | ✓ | ✓ | ✓ |
| Recreation Officer                         |       | ✓ | ✓ | ✓ | ✓ |
| Shearer                                    | ✓     | ✓ |   |   |   |
| Shearing Shed Hand                         | ✓     | ✓ |   |   |   |
| Sports Administrator                       |       |   |   |   | ✓ |
| Sports Coach                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Sports Scientist                           |       |   |   |   | ✓ |
| Sportsperson                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Stunt Performer                            | ✓     |   |   |   |   |
| Taxidermist                                | ✓     |   |   |   |   |
| Teacher — Physical Education               |       |   |   |   | ✓ |
| Timber and Wood Production Worker          | ✓     | ✓ |   |   |   |
| Timber Harvesting Operator                 | ✓     | ✓ |   |   |   |
| Toxicologist 幸                             |       |   |   |   | ✓ |
| Veterinary Nurse                           |       |   | ✓ |   |   |
| Viticulturalist                            |       |   |   |   | ✓ |
| Water Services Officer 幸                   |       | ✓ |   |   |   |
| Winery Worker                              | ✓     | ✓ |   |   |   |
| Wool Classer                               |       |   | ✓ |   |   |
| Zoologist                                  |       |   |   |   | ✓ |

| Organising or Clerical                          | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i>    |       |   |   |   |   |
| Aboriginal/Torres Strait Islander Health Worker |       | ✓ | ✓ | ✓ |   |
| Accountant                                      |       |   |   | ✓ | ✓ |
| Accounts Clerk                                  | ✓     | ✓ | ✓ | ✓ |   |
| Actuary   |       |   |   |   | ✓ |
| Administrative Assistant                        | ✓     | ✓ |   |   |   |
| Advertising Account Executive                   |       |   |   |   | ✓ |
| Agricultural and Resource Economist             |       |   |   |   | ✓ |
| Air Force Officer                               |       |   |   | ✓ | ✓ |
| Air Traffic Controller                          |       |   |   |   | ✓ |
| Airline Passenger Officer                       | ✓     | ✓ |   |   |   |
| Analyst (Information Technology)                |       |   |   |   | ✓ |
| Anthropologist                                  |       |   |   |   | ✓ |
| Archaeologist                                   |       |   |   |   | ✓ |
| Architectural Technician                        |       |   | ✓ | ✓ |   |
| Archivist                                       |       |   |   |   | ✓ |
| Army Officer                                    |       |   |   | ✓ | ✓ |
| Army Soldier                                    | ✓     | ✓ |   |   |   |
| Arts Administrator                              |       |   |   |   | ✓ |
| Astronomer                                      |       |   |   |   | ✓ |
| Auctioneer                                      | ✓     |   |   |   |   |
| Audiologist                                     |       |   |   |   | ✓ |
| Bank Officer                                    | ✓     | ✓ | ✓ | ✓ | ✓ |
| Building Contractor                             |       |   | ✓ | ✓ |   |
| Business (Systems) Analyst                      |       |   |   |   | ✓ |
| Contact Centre Operator                         | ✓     | ✓ | ✓ |   |   |
| Car Rental Officer                              | ✓     | ✓ |   |   |   |
| Cartographer 幸                                  |       |   |   | ✓ | ✓ |
| Cartographic Technician 幸                       |       |   |   | ✓ |   |
| Cashier   | ✓     | ✓ |   |   |   |
| Caterer   | ✓     | ✓ | ✓ | ✓ |   |
| Child Care Coordinator                          |       |   |   | ✓ | ✓ |
| Civil Celebrant                                 | ✓     | ✓ | ✓ |   |   |
| Civil Engineering Technologist 幸                |       |   |   |   | ✓ |
| Clerical Officer — Local Government             | ✓     | ✓ |   |   |   |
| Clinical Coder                                  | ✓     |   |   |   |   |
| Community Worker                                |       | ✓ | ✓ | ✓ | ✓ |
| Company Secretary                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Computer Systems Auditor                        |       |   |   |   | ✓ |
| Conveyancer                                     |       |   | ✓ | ✓ | ✓ |
| Correctional Officer                            |       | ✓ | ✓ |   |   |
| Court Officer                                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Criminologist                                   |       |   |   |   | ✓ |
| Customs Broker                                  |       | ✓ | ✓ | ✓ |   |
| Customs and Border Protection Officer           | ✓     | ✓ | ✓ | ✓ | ✓ |
| Debt Collector                                  | ✓     | ✓ |   |   |   |
| Dispensary Technician                           | ✓     | ✓ | ✓ |   |   |
| Economist                                       |       |   |   |   | ✓ |
| Editor  |       |   |   |   | ✓ |



| Organising or Clerical                    | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| Education Aide                            | ✓     | ✓ |   |   |   |
| Environmental Engineer 卒                  |       |   |   |   | ✓ |
| Environmental Health Officer 卒            |       |   |   |   | ✓ |
| Events Coordinator                        | ✓     | ✓ | ✓ | ✓ |   |
| Farmer/Farm Manager 卒                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film and Television Producer's Assistant  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film, Stage and Television Director       | ✓     | ✓ | ✓ | ✓ | ✓ |
| Financial Dealer and Broker               |       |   |   |   | ✓ |
| Financial Dealer's Assistant              |       | ✓ | ✓ | ✓ |   |
| Food Processing Technician                |       | ✓ | ✓ | ✓ |   |
| Foreign Affairs and Trade Officer         |       |   |   |   | ✓ |
| Forensic Scientist                        |       |   |   |   | ✓ |
| Forester 卒                                |       |   |   |   | ✓ |
| Garbage Collector 卒                       | ✓     | ✓ |   |   |   |
| Geographer                                |       |   |   |   | ✓ |
| Geographic Information Systems Officer 卒  |       |   |   | ✓ | ✓ |
| Geologist                                 |       |   |   |   | ✓ |
| Geophysicist                              |       |   |   |   | ✓ |
| Health Information Manager                |       |   |   |   | ✓ |
| Historian                                 |       |   |   |   | ✓ |
| Horse Manager                             | ✓     | ✓ | ✓ | ✓ | ✓ |
| Hospital Administrator                    |       |   |   |   | ✓ |
| Hotel and Motel Front Office Attendant    | ✓     | ✓ |   |   |   |
| Human Resources Officer                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Importer and Exporter                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Indigenous Community Liaison Officer      | ✓     | ✓ |   |   |   |
| Industrial Engineering Technologist       |       |   |   |   | ✓ |
| Industrial Relations Officer              |       |   |   |   | ✓ |
| Information Technology Administrator      |       |   |   | ✓ | ✓ |
| Information Technology Support Technician |       | ✓ | ✓ | ✓ |   |
| Insurance Agent                           | ✓     | ✓ | ✓ | ✓ |   |
| Insurance Broker                          |       | ✓ | ✓ | ✓ |   |
| Insurance Officer                         | ✓     | ✓ | ✓ | ✓ |   |
| Interpreter                               |       |   |   | ✓ | ✓ |
| Inventory and Supply Officer              | ✓     | ✓ | ✓ | ✓ |   |
| Journalist                                |       |   |   | ✓ | ✓ |
| Land Economist                            |       |   |   |   | ✓ |
| Lawyer                                    |       |   |   | ✓ | ✓ |
| Librarian                                 |       |   |   |   | ✓ |
| Library Assistant                         | ✓     | ✓ | ✓ |   |   |
| Library Technician                        |       |   |   | ✓ |   |
| Local Government Inspector                | ✓     | ✓ | ✓ |   |   |
| Logistics Clerk                           |       | ✓ | ✓ | ✓ | ✓ |
| Management Consultant                     |       |   |   |   | ✓ |
| Marine Surveyor                           |       |   |   | ✓ |   |
| Market Researcher                         |       |   |   |   | ✓ |
| Mathematician                             |       |   |   |   | ✓ |
| Mechanical Engineering Technologist       |       |   |   |   | ✓ |
| Media Presenter                           | ✓     | ✓ | ✓ | ✓ | ✓ |
| Medical Scientist                         |       |   |   |   | ✓ |

| Organising or Clerical                     | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Meteorological Technical Officer 卒         |       |   |   | ✓ |   |
| Navy Officer                               |       |   |   | ✓ | ✓ |
| Navy Sailor                                | ✓     | ✓ |   |   |   |
| Newsagent                                  | ✓     | ✓ | ✓ |   |   |
| Occupational Health and Safety Officer     |       |   | ✓ | ✓ | ✓ |
| Office Administrator                       | ✓     | ✓ |   |   |   |
| Park Ranger 卒                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Parliamentarian                            | ✓     | ✓ | ✓ | ✓ | ✓ |
| Patent Examiner                            |       |   |   |   | ✓ |
| Petroleum Engineer                         |       |   |   |   | ✓ |
| Pharmacist                                 |       |   |   |   | ✓ |
| Physicist                                  |       |   |   |   | ✓ |
| Pilot                                      |       |   | ✓ | ✓ | ✓ |
| Police Officer — Australian Federal Police | ✓     | ✓ | ✓ | ✓ | ✓ |
| Police Officer — State                     |       |   |   | ✓ | ✓ |
| Political Scientist                        |       |   |   |   | ✓ |
| Primary Products Inspector                 |       | ✓ | ✓ |   |   |
| Private Investigator                       | ✓     | ✓ |   |   |   |
| Probation and Parole Officer               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Programmer (Information Technology)        |       |   |   | ✓ | ✓ |
| Public Relations Officer                   |       |   |   | ✓ | ✓ |
| Public Servant — Australian Public Service | ✓     | ✓ | ✓ | ✓ | ✓ |
| Public Servant — State Government          | ✓     | ✓ | ✓ | ✓ | ✓ |
| Publisher                                  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Quality Assurance Inspector                | ✓     | ✓ | ✓ | ✓ |   |
| Quantity Surveyor                          |       |   |   |   | ✓ |
| Radio Despatcher                           | ✓     |   |   |   |   |
| Real Estate Salesperson                    |       | ✓ | ✓ | ✓ |   |
| Receptionist                               | ✓     | ✓ |   |   |   |
| Records and Information Manager            |       |   |   | ✓ | ✓ |
| Recreation Officer                         |       | ✓ | ✓ | ✓ | ✓ |
| Recruitment Consultant                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Rehabilitation Counsellor                  |       |   |   |   | ✓ |
| Research Officer                           |       |   |   |   | ✓ |
| Retail Buyer                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Sales Assistant                            | ✓     | ✓ |   |   |   |
| Sales Representative                       | ✓     | ✓ |   |   |   |
| Science Field Officer                      |       | ✓ | ✓ | ✓ |   |
| Secretary                                  |       | ✓ | ✓ | ✓ |   |
| Set Designer                               |       |   |   | ✓ | ✓ |
| Settlement Clerk                           | ✓     | ✓ | ✓ |   |   |
| Ship's Catering Attendant                  | ✓     |   |   |   |   |
| Ship's Master                              |       |   |   | ✓ |   |
| Ship's Officer                             |       |   |   | ✓ |   |
| Social Worker                              |       |   |   |   | ✓ |
| Sociologist                                |       |   |   |   | ✓ |
| Sports Administrator                       |       |   |   |   | ✓ |
| Sports Coach                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Stage Manager                              |       |   |   | ✓ | ✓ |
| Stock and Station Agent                    |       | ✓ | ✓ | ✓ |   |



| Organising or Clerical                   | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Storeperson                              | ✓     | ✓ |   |   |   |
| Strata Managing Agent                    | ✓     | ✓ | ✓ | ✓ |   |
| Survey Assistant 幸                       | ✓     | ✓ | ✓ |   |   |
| Surveying Technician 幸                   |       |   |   | ✓ |   |
| Surveyor 幸                               |       |   |   | ✓ | ✓ |
| Teacher — Art                            |       |   |   |   | ✓ |
| Teacher — English as a Second Language   |       |   |   |   | ✓ |
| Teacher — Music                          |       |   |   |   | ✓ |
| Teacher — Primary                        |       |   |   |   | ✓ |
| Teacher — Secondary                      |       |   |   |   | ✓ |
| Teacher — Special Education              |       |   |   |   | ✓ |
| Technical and Further Education Lecturer |       |   |   | ✓ | ✓ |
| Tourist Information Officer              | ✓     | ✓ | ✓ |   |   |
| Trade Measurement Officer                | ✓     | ✓ | ✓ | ✓ |   |
| Trade Union Official                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Train and Network Controller             | ✓     |   |   |   |   |
| Training Officer                         |       |   |   |   | ✓ |
| Transcript Typist                        | ✓     | ✓ |   |   |   |
| Translator                               |       |   |   | ✓ | ✓ |
| Transport Administrator                  |       |   | ✓ | ✓ | ✓ |
| Transport Clerk                          | ✓     | ✓ |   |   |   |
| Travel Consultant                        | ✓     | ✓ |   |   |   |
| University Lecturer                      |       |   |   |   | ✓ |
| Urban and Regional Planner 幸             |       |   |   |   | ✓ |
| Valuer                                   |       |   |   | ✓ | ✓ |
| Vehicle Dismantler                       | ✓     | ✓ |   |   |   |
| Water and Wastewater Plant Operator 幸    |       | ✓ |   |   |   |
| Welfare Worker                           |       |   |   | ✓ | ✓ |
| Winemaker                                |       |   |   |   | ✓ |
| Word Processing Operator                 | ✓     | ✓ |   |   |   |
| Writer                                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Youth Worker                             |       | ✓ | ✓ | ✓ | ✓ |

| Persuading or Service                        | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i> |       |   |   |   |   |
| Administrative Assistant                     | ✓     | ✓ |   |   |   |
| Advertising Account Executive                |       |   |   |   | ✓ |
| Agricultural Technical Officer 幸             |       |   | ✓ | ✓ | ✓ |
| Air Force Officer                            |       |   |   | ✓ | ✓ |
| Airline Passenger Officer                    | ✓     | ✓ |   |   |   |
| Airline Baggage and Freight Handler          | ✓     | ✓ |   |   |   |
| Arts Administrator                           |       |   |   |   | ✓ |
| Auctioneer                                   | ✓     |   |   |   |   |
| Automotive Parts Interpreter                 |       | ✓ |   |   |   |
| Baker  |       |   | ✓ |   |   |
| Bank Officer                                 | ✓     | ✓ | ✓ | ✓ | ✓ |
| Bar Attendant                                | ✓     | ✓ |   |   |   |
| Beauty Therapist                             |       |   | ✓ | ✓ |   |

| Persuading or Service                  | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Betting Clerk                          | ✓     |   |   |   |   |
| Bicycle Technician                     | ✓     | ✓ |   |   |   |
| Body Artist                            | ✓     | ✓ |   |   | ✓ |
| Bookmaker                              | ✓     |   |   |   |   |
| Bus Driver                             | ✓     | ✓ |   |   |   |
| Business Equipment Technician          |       | ✓ | ✓ |   |   |
| Butcher                                |       | ✓ |   |   |   |
| Contact Centre Operator                | ✓     | ✓ | ✓ |   |   |
| Car Driver                             | ✓     |   |   |   |   |
| Car Park Attendant                     | ✓     |   |   |   |   |
| Car Rental Officer                     | ✓     | ✓ |   |   |   |
| Cashier                                | ✓     | ✓ |   |   |   |
| Caterer                                | ✓     | ✓ | ✓ | ✓ |   |
| Child Care Worker                      |       | ✓ | ✓ | ✓ |   |
| Cleaner                                | ✓     | ✓ |   |   |   |
| Company Secretary                      | ✓     | ✓ | ✓ | ✓ | ✓ |
| Consumer Scientist                     |       |   |   |   | ✓ |
| Copywriter                             | ✓     | ✓ | ✓ | ✓ | ✓ |
| Correctional Officer                   |       | ✓ | ✓ |   |   |
| Court Officer                          | ✓     | ✓ | ✓ | ✓ | ✓ |
| Cultural Heritage Officer              |       |   |   |   | ✓ |
| Customs and Border Protection Officer  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Debt Collector                         | ✓     | ✓ |   |   |   |
| Delivery Driver                        | ✓     | ✓ |   |   |   |
| Dispensary Technician                  | ✓     | ✓ | ✓ |   |   |
| Dry Cleaner                            | ✓     | ✓ |   |   |   |
| Electrician                            |       | ✓ | ✓ |   |   |
| Engraver                               | ✓     |   |   |   |   |
| Environmental Health Officer 幸         |       |   |   |   | ✓ |
| Events Coordinator                     | ✓     | ✓ | ✓ | ✓ |   |
| Family Day Carer                       |       | ✓ |   |   |   |
| Fashion Coordinator                    |       | ✓ | ✓ | ✓ |   |
| Fashion Designer                       |       | ✓ | ✓ | ✓ | ✓ |
| Financial Dealer and Broker            |       |   |   |   | ✓ |
| Fitness Instructor                     |       | ✓ | ✓ | ✓ |   |
| Flight Attendant                       | ✓     | ✓ |   |   |   |
| Floor Finisher and Coverer             |       | ✓ |   |   |   |
| Florist                                |       | ✓ | ✓ |   |   |
| Foreign Affairs and Trade Officer      |       |   |   |   | ✓ |
| Funeral Attendant                      | ✓     | ✓ |   |   |   |
| Furniture Removalist                   | ✓     | ✓ |   |   |   |
| Gaming Worker                          | ✓     | ✓ |   |   |   |
| Hairdresser                            |       |   | ✓ |   |   |
| Health Promotion Officer               |       |   |   |   | ✓ |
| Home Economist                         |       |   |   |   | ✓ |
| Hotel and Motel Front Office Attendant | ✓     | ✓ |   |   |   |
| House Parent                           | ✓     |   |   |   |   |
| Human Resources Officer                | ✓     | ✓ | ✓ | ✓ | ✓ |
| Importer and Exporter                  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Indigenous Community Liaison Officer   | ✓     | ✓ |   |   |   |



| Persuading or Service                         | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| Industrial Relations Officer                  |       |   |   |   | ✓ |
| Insurance Agent                               | ✓     | ✓ | ✓ | ✓ |   |
| Insurance Broker                              |       | ✓ | ✓ | ✓ |   |
| Insurance Officer                             | ✓     | ✓ | ✓ | ✓ |   |
| Interior Decorator                            |       | ✓ | ✓ | ✓ |   |
| Interior Designer                             |       |   |   | ✓ | ✓ |
| Journalist                                    |       |   |   | ✓ | ✓ |
| Laundry Worker                                | ✓     | ✓ |   |   |   |
| Law Clerk                                     | ✓     | ✓ | ✓ | ✓ |   |
| Lawyer  |       |   |   | ✓ | ✓ |
| Local Government Inspector                    | ✓     | ✓ | ✓ |   |   |
| Market Researcher                             |       |   |   |   | ✓ |
| Marketing Officer                             |       |   |   | ✓ | ✓ |
| Media Presenter                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Milliner                                      |       | ✓ |   |   |   |
| Model   | ✓     |   |   |   |   |
| Nail Technician                               | ✓     | ✓ |   |   |   |
| Newsagent                                     | ✓     | ✓ | ✓ |   |   |
| Parliamentarian                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Pest and Weed Controller 幸                    | ✓     | ✓ |   |   |   |
| Pharmacist                                    |       |   |   |   | ✓ |
| Photographic Processor                        | ✓     |   |   |   |   |
| Porter — Hotel/Motel                          | ✓     | ✓ |   |   |   |
| Postal Employee                               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Private Investigator                          | ✓     | ✓ |   |   |   |
| Public Relations Officer                      |       |   |   | ✓ | ✓ |
| Public Servant — Australian Public Service    | ✓     | ✓ | ✓ | ✓ | ✓ |
| Public Servant — State Government             | ✓     | ✓ | ✓ | ✓ | ✓ |
| Publisher                                     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Real Estate Salesperson                       |       | ✓ | ✓ | ✓ |   |
| Receptionist                                  | ✓     | ✓ |   |   |   |
| Religious Leader                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Retail Buyer                                  | ✓     | ✓ | ✓ | ✓ | ✓ |
| Room Attendant                                | ✓     | ✓ |   |   |   |
| Sales Assistant                               | ✓     | ✓ |   |   |   |
| Sales Representative                          | ✓     | ✓ |   |   |   |
| Sales Representative (Information Technology) |       | ✓ | ✓ | ✓ | ✓ |
| Secretary                                     |       | ✓ | ✓ | ✓ |   |
| Security Officer                              |       | ✓ | ✓ |   |   |
| Service Station Attendant                     | ✓     | ✓ |   |   |   |
| Ship's Catering Attendant                     | ✓     |   |   |   |   |
| Special Care Worker                           | ✓     | ✓ | ✓ |   |   |
| Sports Administrator                          |       |   |   |   | ✓ |
| Stock and Station Agent                       |       | ✓ | ✓ | ✓ |   |
| Strata Managing Agent                         | ✓     | ✓ | ✓ | ✓ |   |
| Telemarketer                                  | ✓     | ✓ |   |   |   |
| Ticket Seller                                 | ✓     | ✓ |   |   |   |
| Tour Guide                                    | ✓     | ✓ | ✓ |   |   |
| Tourist Information Officer                   | ✓     | ✓ | ✓ |   |   |

| Persuading or Service              | Level |   |   |   |   |
|------------------------------------|-------|---|---|---|---|
|                                    | 1     | 2 | 3 | 4 | 5 |
| Trade Measurement Officer          | ✓     | ✓ | ✓ | ✓ |   |
| Trade Union Official               | ✓     | ✓ | ✓ | ✓ | ✓ |
| Train Crew Employee                | ✓     |   |   |   |   |
| Transport Administrator            |       |   | ✓ | ✓ | ✓ |
| Transport Services Officer         | ✓     |   |   |   |   |
| Travel Consultant                  | ✓     | ✓ |   |   |   |
| Trichologist                       |       |   | ✓ |   |   |
| University Lecturer                |       |   |   |   | ✓ |
| Usher                              | ✓     | ✓ |   |   |   |
| Valuer                             |       |   |   | ✓ | ✓ |
| Visual Merchandiser                | ✓     | ✓ | ✓ | ✓ |   |
| Waiter                             | ✓     | ✓ |   |   |   |
| Watch and Clock Maker and Repairer |       | ✓ |   |   |   |
| Weight Loss Counsellor             | ✓     | ✓ |   |   |   |
| Winemaker                          |       |   |   |   | ✓ |

| Practical or Mechanical                      | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| <i>Skill levels 1-5 explained on page 14</i> |       |   |   |   |   |
| Aerospace Engineer                           |       |   |   |   | ✓ |
| Agricultural Engineer 幸                      |       |   |   |   | ✓ |
| Agricultural Scientist 幸                     |       |   |   |   | ✓ |
| Agricultural Technical Officer 幸             |       |   | ✓ | ✓ | ✓ |
| Air Force General Entrant                    | ✓     |   |   |   |   |
| Air Force Officer                            |       |   |   | ✓ | ✓ |
| Air Force Technician/Tradesperson            |       | ✓ | ✓ | ✓ |   |
| Aircraft Maintenance Engineer                |       | ✓ | ✓ |   |   |
| Airline Baggage and Freight Handler          | ✓     | ✓ |   |   |   |
| Anaesthetic Technician                       |       |   | ✓ | ✓ |   |
| Animal Attendant 幸                           | ✓     | ✓ |   |   |   |
| Archaeologist                                |       |   |   |   | ✓ |
| Architectural Technician                     |       |   | ✓ | ✓ |   |
| Army Officer                                 |       |   |   | ✓ | ✓ |
| Army Soldier                                 | ✓     | ✓ |   |   |   |
| Army Soldier — Technician                    |       |   | ✓ | ✓ |   |
| Audiometrist                                 |       |   | ✓ |   |   |
| Audiovisual Technician                       | ✓     | ✓ | ✓ | ✓ |   |
| Automotive Airconditioning Fitter            |       | ✓ |   |   |   |
| Automotive Electrician                       |       | ✓ | ✓ |   |   |
| Automotive Parts Interpreter                 |       | ✓ |   |   |   |
| Aviation Firefighter                         |       |   | ✓ |   |   |
| Baker  |       |   | ✓ |   |   |
| Bar Attendant                                | ✓     | ✓ |   |   |   |
| Beekeeper                                    | ✓     |   |   |   |   |
| Bicycle Technician                           | ✓     | ✓ |   |   |   |
| Binder and Finisher                          |       | ✓ |   |   |   |
| Biochemist                                   |       |   |   |   | ✓ |
| Biomedical Engineer                          |       |   |   |   | ✓ |
| Biotechnologist 幸                            |       |   |   |   | ✓ |
| Brake Mechanic                               |       | ✓ |   |   |   |



| Practical or Mechanical                        | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Brewery Worker                                 | ✓     | ✓ |   |   |   |
| Bricklayer                                     |       | ✓ |   |   |   |
| Broadcasting Technician                        | ✓     | ✓ | ✓ |   |   |
| Building Contractor                            |       |   | ✓ | ✓ |   |
| Building Surveyor                              |       |   |   | ✓ | ✓ |
| Bus Driver                                     | ✓     | ✓ |   |   |   |
| Business Equipment Technician                  |       | ✓ | ✓ |   |   |
| Butcher  |       | ✓ |   |   |   |
| Cabinetmaker                                   |       | ✓ | ✓ |   |   |
| Cable Joiner                                   |       | ✓ |   |   |   |
| Car Driver                                     | ✓     |   |   |   |   |
| Car Rental Officer                             | ✓     | ✓ |   |   |   |
| Car Wash Attendant                             | ✓     | ✓ |   |   |   |
| Caravan Park Attendant                         | ✓     | ✓ |   |   |   |
| Cardiac Technologist                           |       |   |   |   | ✓ |
| Carpenter                                      |       | ✓ |   |   |   |
| Cashier  | ✓     | ✓ |   |   |   |
| Cheesemaker                                    |       | ✓ |   |   |   |
| Chef   |       | ✓ | ✓ |   |   |
| Chemical Engineer 幸                            |       |   |   |   | ✓ |
| Chemical Plant Operator                        | ✓     | ✓ |   |   |   |
| Child Care Worker                              |       | ✓ | ✓ | ✓ |   |
| Chiropractor                                   |       |   |   |   | ✓ |
| Civil and Structural Engineering Associate 幸   |       |   |   | ✓ |   |
| Civil Engineer 幸                               |       |   |   |   | ✓ |
| Civil Engineering Technologist 幸               |       |   |   |   | ✓ |
| Cleaner  | ✓     | ✓ |   |   |   |
| Clothing and Soft Furnishing Production Worker | ✓     | ✓ |   |   |   |
| Clothing Patternmaker                          |       |   | ✓ |   |   |
| Computer Engineer                              |       |   |   |   | ✓ |
| Concreter                                      | ✓     | ✓ |   |   |   |
| Confectioner                                   |       | ✓ |   |   |   |
| Conservator                                    |       |   |   |   | ✓ |
| Construction Worker                            | ✓     | ✓ |   |   |   |
| Cook   | ✓     | ✓ |   |   |   |
| Cooper   |       | ✓ |   |   |   |
| Craftsperson                                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Crane Operator                                 | ✓     | ✓ |   |   |   |
| Customs and Border Protection Officer          | ✓     | ✓ | ✓ | ✓ | ✓ |
| Dancer   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Deck Hand                                      | ✓     | ✓ |   |   |   |
| Delivery Driver                                | ✓     | ✓ |   |   |   |
| Dental Assistant                               |       | ✓ | ✓ |   |   |
| Dental Hygienist                               |       |   |   | ✓ | ✓ |
| Dental Technician                              |       |   |   | ✓ | ✓ |
| Dentist  |       |   |   |   | ✓ |
| Disability Services Instructor                 |       |   |   | ✓ | ✓ |
| Diver  | ✓     | ✓ | ✓ | ✓ |   |

| Practical or Mechanical                            | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Dogger   | ✓     | ✓ |   |   |   |
| Driller's Assistant                                | ✓     | ✓ |   |   |   |
| Driving Instructor                                 |       |   | ✓ |   |   |
| Dry Cleaner  | ✓     | ✓ |   |   |   |
| Electrical Engineer                                |       |   |   |   | ✓ |
| Electrical Engineering Associate                   |       |   |   | ✓ |   |
| Electrical Linesperson                             |       | ✓ |   |   |   |
| Electrical Motor Winding Tradesperson              |       | ✓ |   |   |   |
| Electrical or Electronics Engineering Technologist |       |   |   |   | ✓ |
| Electrician  |       | ✓ | ✓ |   |   |
| Electronics Engineer                               |       |   |   |   | ✓ |
| Electronics Engineering Associate                  |       |   |   | ✓ |   |
| Electronics and Communications Technician          |       | ✓ |   |   |   |
| Engine Reconditioner                               |       | ✓ | ✓ |   |   |
| Engineering Tradesperson — Fabrication             |       | ✓ | ✓ |   |   |
| Engineering Tradesperson — Mechanical              |       | ✓ |   |   |   |
| Engraver   | ✓     |   |   |   |   |
| Environmental Engineer 幸                           |       |   |   |   | ✓ |
| Exhaust Fitter and Repairer                        | ✓     | ✓ |   |   |   |
| Farm Hand  | ✓     | ✓ |   |   |   |
| Farmer/Farm Manager 幸                              | ✓     | ✓ | ✓ | ✓ | ✓ |
| Farrier  |       | ✓ |   |   |   |
| Fashion Designer                                   |       | ✓ | ✓ | ✓ | ✓ |
| Film and Television Camera Operator                | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film and Television Editor                         | ✓     | ✓ | ✓ | ✓ | ✓ |
| Film and Television Lighting Operator              | ✓     | ✓ | ✓ | ✓ |   |
| Fire Extinguisher Servicer                         | ✓     | ✓ |   |   |   |
| Firefighter  | ✓     | ✓ |   |   |   |
| Fish Farm Hand                                     | ✓     | ✓ |   |   |   |
| Fisheries Officer 幸                                |       | ✓ | ✓ | ✓ |   |
| Fitness Instructor                                 |       | ✓ | ✓ | ✓ |   |
| Flight Attendant                                   | ✓     | ✓ |   |   |   |
| Floor Finisher and Coverer                         |       | ✓ |   |   |   |
| Florist  |       | ✓ | ✓ |   |   |
| Food Process Worker                                | ✓     | ✓ |   |   |   |
| Food Processing Technician                         |       | ✓ | ✓ | ✓ |   |
| Food Technologist                                  |       |   |   |   | ✓ |
| Footwear Worker                                    | ✓     | ✓ |   |   |   |
| Forest Technical Officer 幸                         | ✓     | ✓ | ✓ | ✓ | ✓ |
| Forest Worker 幸                                    | ✓     | ✓ |   |   |   |
| Forester 幸   |       |   |   |   | ✓ |
| Forklift Operator                                  | ✓     | ✓ |   |   |   |
| Fruit and Vegetable Picker                         | ✓     |   |   |   |   |
| Funeral Attendant                                  | ✓     | ✓ |   |   |   |
| Furniture Polisher                                 |       | ✓ | ✓ |   |   |
| Furniture Removalist                               | ✓     | ✓ |   |   |   |
| Garbage Collector 幸                                | ✓     | ✓ |   |   |   |
| Geological Engineer 幸                              |       |   |   |   | ✓ |



| Practical or Mechanical                   | Level |   |   |   |   |
|---|-------|---|---|---|---|
|   | 1     | 2 | 3 | 4 | 5 |
| Geologist 卒                               |       |   |   |   | ✓ |
| Geophysicist 卒                            |       |   |   |   | ✓ |
| Glass and Glazing Tradesperson            |       | ✓ |   |   |   |
| Graphic Designer                          |       |   |   | ✓ | ✓ |
| Graphic Prepress Tradesperson             |       | ✓ |   |   |   |
| Hairdresser                               |       |   | ✓ |   |   |
| Handyperson                               | ✓     |   |   |   |   |
| Heat Treater                              | ✓     | ✓ |   |   |   |
| Heavy Vehicle Motor Mechanic              |       | ✓ |   |   |   |
| Home Improvement Installer                | ✓     | ✓ |   |   |   |
| Horse Manager                             | ✓     | ✓ | ✓ | ✓ | ✓ |
| Horse Trainer                             | ✓     | ✓ | ✓ | ✓ |   |
| Horticultural Assistant 卒                 | ✓     | ✓ |   |   |   |
| Horticultural Tradesperson 卒              |       | ✓ |   |   |   |
| House Parent                              | ✓     |   |   |   |   |
| Industrial Designer                       |       |   |   |   | ✓ |
| Industrial Engineer                       |       |   |   |   | ✓ |
| Industrial Engineering Technologist       |       |   |   |   | ✓ |
| Industrial Spray Painter                  | ✓     |   |   |   |   |
| Industrial Textiles Fabricator            | ✓     | ✓ |   |   |   |
| Information Technology Administrator      |       |   |   | ✓ | ✓ |
| Information Technology Support Technician |       | ✓ | ✓ | ✓ |   |
| Instrument Fitter                         |       | ✓ | ✓ |   |   |
| Instrumentation Tradesperson              |       | ✓ |   |   |   |
| Integrated Rating                         |       | ✓ |   |   |   |
| Interior Decorator                        |       | ✓ | ✓ | ✓ |   |
| Interior Designer                         |       |   |   | ✓ | ✓ |
| Jackaroo                                  | ✓     | ✓ | ✓ |   |   |
| Jeweller                                  |       | ✓ | ✓ | ✓ | ✓ |
| Joiner                                    |       | ✓ | ✓ |   |   |
| Kitchenhand                               | ✓     | ✓ |   |   |   |
| Laboratory Worker 卒                       |       | ✓ | ✓ | ✓ |   |
| Landcare Worker 卒                         | ✓     | ✓ |   |   |   |
| Landscape Architect 卒                     |       |   |   |   | ✓ |
| Laundry Worker                            | ✓     | ✓ |   |   |   |
| Leather Goods Maker                       | ✓     | ✓ |   |   |   |
| Lift Electrician                          |       | ✓ | ✓ |   |   |
| Light Engine Mechanic                     |       | ✓ | ✓ |   |   |
| Light Vehicle Motor Mechanic              |       | ✓ |   |   |   |
| Machine Operator (non-metal)              | ✓     | ✓ |   |   |   |
| Marine Engineer                           |       |   | ✓ | ✓ |   |
| Marine Surveyor                           |       |   |   | ✓ |   |
| Materials Engineer                        |       |   |   |   | ✓ |
| Meat Processing Worker                    | ✓     | ✓ |   |   |   |
| Mechanical Engineer                       |       |   |   |   | ✓ |
| Mechanical Engineering Associate          |       |   |   | ✓ |   |
| Mechanical Engineering Technologist       |       |   |   |   | ✓ |
| Mechatronic Engineer                      |       |   |   |   | ✓ |
| Medical Imaging Technologist              |       |   |   |   | ✓ |
| Medical Laboratory Technician             |       |   |   | ✓ |   |

| Practical or Mechanical             | Level |   |   |   |   |
|-------------------------------------|-------|---|---|---|---|
|                                     | 1     | 2 | 3 | 4 | 5 |
| Medical Scientist                   |       |   |   |   | ✓ |
| Metal Surface Finisher              | ✓     | ✓ |   |   |   |
| Meteorological Technical Officer 卒  |       |   |   | ✓ |   |
| Microbiologist 卒                    |       |   |   |   | ✓ |
| Milliner                            |       | ✓ |   |   |   |
| Miner                               | ✓     | ✓ |   |   |   |
| Mineral Processing Operator         | ✓     | ✓ |   |   |   |
| Minerals Process Engineer 卒         |       |   |   |   | ✓ |
| Mining Engineer 卒                   |       |   |   |   | ✓ |
| Mobile Plant Operator               | ✓     | ✓ |   |   |   |
| Model                               | ✓     |   |   |   |   |
| Model Maker                         | ✓     | ✓ | ✓ | ✓ |   |
| Multimedia Developer                |       |   | ✓ | ✓ | ✓ |
| Museum Curator                      |       |   |   |   | ✓ |
| Museum Officer                      |       | ✓ |   |   |   |
| Musician                            | ✓     | ✓ | ✓ | ✓ | ✓ |
| Naval Architect                     |       |   |   |   | ✓ |
| Navy Officer                        |       |   |   | ✓ | ✓ |
| Navy Sailor                         | ✓     | ✓ |   |   |   |
| Navy Technical Sailor               |       |   | ✓ | ✓ |   |
| Nuclear Medicine Technologist       |       |   |   |   | ✓ |
| Nurse — Enrolled                    |       |   | ✓ | ✓ |   |
| Offset Printer                      |       | ✓ |   |   |   |
| Operating Theatre Technician        |       | ✓ |   |   |   |
| Optical Dispenser                   |       |   | ✓ |   |   |
| Optical Mechanic                    |       |   | ✓ |   |   |
| Oral Health Therapist               |       |   |   | ✓ | ✓ |
| Orientation and Mobility Instructor |       |   |   |   | ✓ |
| Painter and Decorator               |       | ✓ |   |   |   |
| Panel Beater                        |       | ✓ |   |   |   |
| Paper and Pulp Operator             | ✓     | ✓ |   |   |   |
| Paramedic                           |       |   |   | ✓ | ✓ |
| Park Ranger 卒                       | ✓     | ✓ | ✓ | ✓ | ✓ |
| Pastrycook                          |       | ✓ |   |   |   |
| Pest and Weed Controller 卒          | ✓     | ✓ |   |   |   |
| Petroleum and Gas Plant Operator    | ✓     | ✓ |   |   |   |
| Petroleum Engineer                  |       |   |   |   | ✓ |
| Pharmacologist                      |       |   |   |   | ✓ |
| Photographer                        | ✓     | ✓ | ✓ | ✓ | ✓ |
| Photographic Processor              | ✓     |   |   |   |   |
| Physiotherapist                     |       |   |   |   | ✓ |
| Picture Framer                      | ✓     | ✓ |   |   |   |
| Pilot                               |       |   | ✓ | ✓ | ✓ |
| Plasterer                           |       | ✓ | ✓ |   |   |
| Plastics and Composites Processor   | ✓     | ✓ |   |   |   |
| Plumber                             |       | ✓ | ✓ |   |   |
| Podiatrist                          |       |   |   |   | ✓ |
| Police Officer — State              |       |   |   | ✓ | ✓ |
| Porter — Hotel/Motel                | ✓     | ✓ |   |   |   |
| Postal Employee                     | ✓     | ✓ | ✓ | ✓ | ✓ |



| Practical or Mechanical                        | Level |   |   |   |   |
|--|-------|---|---|---|---|
|  | 1     | 2 | 3 | 4 | 5 |
| Power Generation Plant Operator                |       | ✓ | ✓ | ✓ |   |
| Printing Hand                                  | ✓     | ✓ |   |   |   |
| Printing Machinist                             |       | ✓ |   |   |   |
| Product Assembler                              | ✓     | ✓ |   |   |   |
| Production Crew Member                         | ✓     | ✓ | ✓ |   |   |
| Programmer (Information Technology)            |       |   |   | ✓ | ✓ |
| Projectionist                                  | ✓     | ✓ |   |   |   |
| Prosthetic/Orthotic Technician                 |       | ✓ |   |   |   |
| Prosthetist/Orthotist                          |       |   |   |   | ✓ |
| Public Servant — Australian Public Service     | ✓     | ✓ | ✓ | ✓ | ✓ |
| Quality Assurance Inspector                    | ✓     | ✓ | ✓ | ✓ |   |
| Radiation Therapist                            |       |   |   |   | ✓ |
| Radiator Repairer                              | ✓     | ✓ |   |   |   |
| Radio Despatcher                               | ✓     |   |   |   |   |
| Railway Infrastructure Worker                  | ✓     |   |   |   |   |
| Recycler 卒                                     | ✓     | ✓ |   |   |   |
| Refrigeration and Airconditioning Draftsperson |       |   |   | ✓ |   |
| Refrigeration and Airconditioning Mechanic     |       | ✓ |   |   |   |
| Rigger   | ✓     | ✓ |   |   |   |
| Road Worker                                    |       | ✓ |   |   |   |
| Roofer   |       | ✓ | ✓ |   |   |
| Room Attendant                                 | ✓     | ✓ |   |   |   |
| Rubber Processor                               | ✓     | ✓ |   |   |   |
| Saw Doctor                                     |       | ✓ |   |   |   |
| Scaffolder                                     | ✓     | ✓ |   |   |   |
| Science Field Officer                          |       | ✓ | ✓ | ✓ |   |
| Screen Printer/Stencil Preparer                |       | ✓ |   |   |   |
| Seafood Processor                              | ✓     | ✓ |   |   |   |
| Secretary                                      |       | ✓ | ✓ | ✓ |   |
| Security Officer                               |       | ✓ | ✓ |   |   |
| Security System Technician                     | ✓     | ✓ |   |   |   |
| Service Station Attendant                      | ✓     | ✓ |   |   |   |
| Set Designer                                   |       |   |   | ✓ | ✓ |
| Shearer  | ✓     | ✓ |   |   |   |
| Shearing Shed Hand                             | ✓     | ✓ |   |   |   |
| Ship's Master                                  |       |   |   | ✓ |   |
| Ship's Officer                                 |       |   |   | ✓ |   |
| Shipwright                                     |       | ✓ |   |   |   |
| Shoe Repairer                                  | ✓     | ✓ |   |   |   |
| Shotfirer                                      | ✓     |   |   |   |   |
| Signmaker                                      |       | ✓ | ✓ |   |   |
| Smallgoods Maker                               |       | ✓ |   |   |   |
| Sound Technician                               | ✓     | ✓ | ✓ | ✓ |   |
| Sportsperson                                   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Stablehand                                     | ✓     | ✓ |   |   |   |
| Stage Manager                                  |       |   |   | ✓ | ✓ |
| Steel Fixer                                    | ✓     | ✓ |   |   |   |
| Stonemason                                     |       | ✓ |   |   |   |

| Practical or Mechanical               | Level |   |   |   |   |
|---------------------------------------|-------|---|---|---|---|
|                                       | 1     | 2 | 3 | 4 | 5 |
| Storeperson                           | ✓     | ✓ |   |   |   |
| Survey Assistant 卒                    | ✓     | ✓ | ✓ |   |   |
| Surveying Technician 卒                |       |   |   | ✓ |   |
| Surveyor 卒                            |       |   |   | ✓ | ✓ |
| Taxidermist                           | ✓     |   |   |   |   |
| Telecommunications Technician         |       | ✓ | ✓ |   |   |
| Textile Designer                      |       |   | ✓ | ✓ | ✓ |
| Textile Mechanic                      |       | ✓ | ✓ |   |   |
| Textile Technician                    |       |   | ✓ |   |   |
| Theatre Mechanic                      | ✓     | ✓ | ✓ | ✓ |   |
| Theatrical Costume Maker and Designer | ✓     | ✓ | ✓ | ✓ | ✓ |
| Therapy Aide                          | ✓     | ✓ | ✓ |   |   |
| Tiler — Wall and Floor                |       | ✓ |   |   |   |
| Timber and Wood Production Worker     | ✓     | ✓ |   |   |   |
| Timber Harvesting Operator            | ✓     | ✓ |   |   |   |
| Tool and Die Setter                   |       | ✓ |   |   |   |
| Toxicologist 卒                        |       |   |   |   | ✓ |
| Train Crew Employee                   | ✓     |   |   |   |   |
| Transcript Typist                     | ✓     | ✓ |   |   |   |
| Truck Driver                          | ✓     | ✓ |   |   |   |
| Truck Offsider                        | ✓     | ✓ |   |   |   |
| Tyre Fitter and Repairer              | ✓     | ✓ |   |   |   |
| Upholsterer                           |       | ✓ |   |   |   |
| Vehicle Body Builder                  |       | ✓ |   |   |   |
| Vehicle Dismantler                    | ✓     | ✓ |   |   |   |
| Vehicle Painter                       |       | ✓ |   |   |   |
| Vehicle Serviceperson                 | ✓     | ✓ |   |   |   |
| Vehicle Trimmer                       |       | ✓ |   |   |   |
| Vending Machine Servicer              | ✓     | ✓ |   |   |   |
| Visual Merchandiser                   | ✓     | ✓ | ✓ | ✓ |   |
| Waiter                                | ✓     | ✓ |   |   |   |
| Ward Assistant                        | ✓     | ✓ |   |   |   |
| Watch and Clock Maker and Repairer    |       | ✓ |   |   |   |
| Water and Wastewater Plant Operator 卒 |       | ✓ |   |   |   |
| Water Services Officer 卒              |       | ✓ |   |   |   |
| Waterside Worker                      | ✓     | ✓ |   |   |   |
| Web Designer/Developer                | ✓     | ✓ | ✓ | ✓ | ✓ |
| Windscreen Fitter                     | ✓     | ✓ |   |   |   |
| Winemaker                             |       |   |   |   | ✓ |
| Winery Worker                         | ✓     | ✓ |   |   |   |



## Looking for a career in Construction or Property Services?

Building Trades, Fire Protection, Security, Real Estate, Spatial Sciences,  
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An initiative by The Construction and Property Services Industry Skills Council (CPSISC).

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- Job Pathway Charts in over 60 industries
- Information and resources for career advisers

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NCDW is an initiative of the Career Industry Council of Australia (CICA) funded by the Department of Education, Employment and Workplace Relations (DEEWR)



# Learning pathways

## What is a learning pathway?

Your learning pathway is the way you navigate your learning, skill development and life experiences through education and training, and your community and personal life.

There are many learning pathways you can take on your way to any employment destination and yours will be unique. Your learning pathway may consist of employment-based training, such as an Australian Apprenticeship (known as an apprenticeship or traineeship in some states and territories), volunteering, entry-level work, further study and/or job advancement.

Throughout your career, the choices you make between different jobs, courses and roles in your community will guide you on your learning pathway. To understand where your choices can take you, it is a good idea to learn about:

- the types of learning experiences available
- where learning takes place
- how to link different types of learning.

## Learning experiences

Learning experiences can take place in formal, non-formal and informal settings:

**Formal learning** takes place through a structured and organised program of instruction that has been formally approved or recognised and leads to the full or partial attainment of a qualification (e.g. a certificate, diploma or degree).

It can take place in an education and training institution, such as a TAFE, or on the job. Some industries and businesses also provide formal education and training programs.

**Non-formal learning** is when you learn through a structured program of instruction, either within or outside an education and training institution. It is not usually evaluated and does not lead to a qualification.

**Informal learning** is when you learn from daily work-related, family or leisure activities such as when someone shows you how to do a task or when you learn by observing others completing tasks. It is not organised or structured learning.

Your decision to be involved in formal, non-formal or informal learning will depend on your career needs at the time. For example, many people in Australia choose to undertake formal training to gain vocational qualifications at different points in their career. Some choose to begin their career by studying for a Vocational Education and Training (VET) qualification; others return to study after a few years in employment as a way to gain new skills or to change jobs.

Others find that they are learning more than enough through the non-formal and informal learning they experience on the job or maybe through the mentors who are guiding them in their career path. As their careers progress, these people may consider formal training. Their knowledge and skills gained outside the formal education system may be recognised and count towards their training.

## Compact with Young Australians

To support young people to gain skills and realise their potential through stronger engagement in education and training, the Australian, state and territory governments have agreed to implement a Compact with Young Australians.

Under the Compact, all young people aged 15 to 24 will be entitled to an education or training place, subject to course requirements and availability. For young people aged 15 to 19 the education or training place can be at any level, while for those aged 20 to 24 the education or training undertaken would need to result in the individual attaining a higher qualification.

The education or training places will be delivered through schools, Registered Training Organisations or higher education providers offering the entitlement until 31 December 2011.

## Where does formal learning take place?

The Australian education and training system is made up of the following:

| Sector   | Types of institutions   |
|--|---|
| <b>Schools</b>                                 | Preschools, primary schools, secondary and senior secondary schools   |
| <b>Vocational Education and Training (VET)</b> | Registered Training Organisations (RTOs) — including publicly owned Technical and Further Education (TAFE) institutes, private colleges, adult and community education centres, and schools |
| <b>Higher education</b>                        | Universities and other registered higher education providers  |

## Linking different types of learning

### Vocational Education and Training in Schools

Vocational education and training (VET) is increasingly provided in the schools sector. VET in Schools programs allow you to complete industry-recognised qualifications while still at school. This gives you the opportunity to combine general and vocational studies and to gain practical industry experience, which will help you get a job or undertake further education or training. Studying VET in Schools programs can help you to gain a dual qualification — your Senior Secondary Certificate of Education plus a whole or part VET qualification. This pathway can lead to study at a TAFE institute, university or other registered private providers.

### VET to university

There are many ways for students to move between the VET sector and the higher education sector, and to move between different institutions and courses in these sectors. Most institutions in Australia have special recognition arrangements to allow for flexible study pathways.

Some of these arrangements include:

- **credit transfer** (for example, receiving credit towards a university course for study completed at TAFE)
- **articulation** (for example, when completion of a TAFE diploma allows you to enter a university degree at second year level)
- **concurrent study** (for example, completing a TAFE diploma and a university degree in a special combined program).

### Other registered higher education providers to university

Other registered higher education providers may offer a range of higher education awards, ranging from diplomas to doctoral degrees.

There are ways for students to move between other registered higher education providers and university as some providers have recognition arrangements to allow for flexible study pathways:



- **credit transfer** (for example, receiving credit towards a university course for study completed at a registered higher education provider)
- **articulation** (for example, when completion of a diploma at a registered higher education provider allows you to enter a university degree at second year level)
- **bridging courses** (for example, when you complete a course at a registered higher education provider to meet the pre-requisites for a course of study at a university).

## Who provides the courses?

### Vocational Education and Training (VET) sector

Formal training to gain VET qualifications provides:

- structured training leading to a qualification
- performance and skills assessment against competency levels
- on-the-job and/or off-the-job training.

*On-the-job* training occurs in the workplace as part of your work. An assessor will visit you regularly to check off the specific competency levels you have achieved for your training qualification. This is also called Structured Workplace Learning in school-based VET courses.

*Off-the-job* training occurs away from the workplace and sometimes out of working hours. It may take place at a TAFE institute, a school or a private training centre. You can study on-campus by attending classes, or externally via online or distance learning at home.

Assessment occurs through tests, completed projects and research at the learning institution.

Registered Training Organisations (RTOs)

- TAFE institutes
- private training providers

TAFE institutes

TAFE is a major provider of post-secondary VET. There are over 5000 courses available at around 500 campuses throughout Australia.

The TAFE system trains people in technical, creative, paraprofessional and mid-level administrative areas. Most TAFE courses are developed in consultation with the relevant industry.

TAFE also offers labour market courses, entry and bridging courses, and adult and community education classes.

For more information, contact a counsellor at your local TAFE institute or TAFE information centre. See the Useful addresses section for contact details.

#### Private training providers

There are about 4000 private RTOs in Australia offering nationally recognised training. These include business colleges, secretarial colleges, computer training centres and industry-based training centres. They provide training from certificate I to advanced diploma level in a wide range of fields. Course fees may be higher than those of TAFE institutes. Contact the Training Authority in your state or territory for information about RTOs (see the Useful addresses section for contact details), or visit the National Training Information Service website at [www.ntis.gov.au](http://www.ntis.gov.au).

#### Skills centres

Skills centres are industry and enterprise-based training facilities that offer a wide range of training to enterprise employees, industry groups and individuals. Some skills centres are located in workplaces, some are stand-alone and others are linked with a TAFE institute, school or Group Training Organisation. There are about 128 industry-based skills centres, 146 skills centres for school students and 40 skills centres connected to VET infrastructure for Aboriginal and Torres Strait Islander people. Contact the Training Authority in your state or territory for information about skills centres. See the Useful addresses section or the end of this section for contact details.

### Higher education sector

#### Universities

Universities offer a wide range of courses, some of which lead to specific occupations such as medicine, nursing or engineering. Other courses such as arts or science degrees are more general.

Universities offer study at undergraduate level (diploma, advanced diploma and bachelor degree) and postgraduate level (graduate certificate, graduate diploma, masters degree and doctoral degree).

Universities also run bridging and tertiary preparation courses which help students to prepare for bachelor degrees.

You can apply to your chosen university through normal entry (senior secondary school qualifications), special/alternative entry or advanced standing entry (credit transfer or credit for prior learning). In most states and territories, and for most courses, applications are processed through a Tertiary Admissions Centre (TAC).

#### Australian Qualifications Framework

| Schools Sector Accreditation                 | Vocational Education and Training Sector Accreditation | Higher Education Sector Accreditation |
|--|--|---------------------------------------|
| Senior Secondary<br>Certificate of Education | Vocational Graduate Diploma                            | Doctoral Degree                       |
|  | Vocational Graduate Certificate                        | Masters Degree                        |
|  |  | Graduate Diploma                      |
|  |  | Graduate Certificate                  |
|  | Advanced Diploma                                       | Bachelor Degree                       |
|  | Diploma  | Associate Degree, Advanced Diploma    |
|  | Certificate IV   | Diploma                               |
|  | Certificate III  |                                       |
|  | Certificate II   |                                       |
|  | Certificate I  |                                       |

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Application forms should be available from August onwards and it is advisable to apply before November. There may be some charges associated with late applications. Contact individual universities and TACs for further advice. See the Useful Addresses section for contact details.

#### Other registered higher education institutes

A number of public and privately operated institutions are able to offer higher education awards, ranging from diplomas to doctoral degrees, accredited by the state or territory government. Many of these institutions focus on studies in particular areas: for example, business, psychology or fine arts. This includes a small number of TAFE institutes which are accredited to also offer higher education courses in selected fields of study.

Before enrolling in a course at a registered higher education provider, you should ensure that the institution and its courses are properly accredited by the relevant government department or authority. For further information, see the register of higher education providers on the Australian Qualifications Framework (AQF) website at [www.aqf.edu.au](http://www.aqf.edu.au).

## What national qualifications can I get?

Qualifications issued by schools, RTOs, TAFE institutes, universities and other registered higher education providers should be qualifications listed in the Australian Qualifications Framework (AQF).

All of the AQF qualifications listed above are recognised throughout Australia. A Statement of Attainment can be issued for units that contribute towards the achievement of a VET sector AQF qualification.

The Statement lists the details of the units successfully completed and can be used to gain credit for further training.

To protect the quality of training, all VET providers who issue AQF qualifications must be registered with state and territory government authorities. Students should check the registration status of their chosen course provider by contacting the Training Authority in their state or territory. Contact details are provided in the Useful addresses section.

For information on the other AQF qualifications, see the table below.

| Qualification   | Duration and Availability  |
|---|--|
| <b>Certificates I–IV:</b><br>Covers training that ranges from basic skills to trade and post-trade qualifications. For example, those who complete an Australian Apprenticeship will receive one of these qualifications. Others who undertake these qualifications may seek work upon completion or go on to further study.  | <b>Duration:</b> 6 months – 4 years full time<br><b>Offered by:</b> Schools, TAFE institutes, other registered higher education providers and universities     |
| <b>Diploma and Advanced Diploma:</b><br>Designed to give you theoretical knowledge and/or technical and creative skills, as well as the ability to apply principles and techniques in a wide range of contexts. Diplomas and advanced diplomas prepare students for work in supervisory and management roles, or in roles assisting professionals. Many of these courses are linked to, and may articulate directly into, bachelor degrees. | <b>Duration:</b> 6 months – 3 years full time<br><b>Offered by:</b> TAFE institutes, other registered higher education providers and universities              |
| <b>Associate Degree:</b><br>Similar to an advanced diploma but with greater emphasis on theoretical knowledge, than on industry-specific workplace competencies and learning outcomes. Commonly articulates with full credit into a bachelor degree program in the same field, or closely related fields.   | <b>Duration:</b> 2 years full time<br><b>Offered by:</b> Universities mostly, but also by some other registered higher education providers and TAFE institutes |
| <b>Bachelor Degree:</b><br>The main undergraduate award offered in higher education, which prepares students for work in many of the professions and also provides initial preparation for postgraduate study.  | <b>Duration:</b> 3 – 5 years full time<br><b>Offered by:</b> Universities mostly, but also by some private higher education providers and TAFE institutes      |
| <b>Graduate Certificate and Graduate Diploma:</b><br>Designed to enhance professional practice and either extend skills and knowledge gained in a bachelor degree or advanced diploma, or develop professional competence in new areas.   | <b>Duration:</b> 6 months – 1 year full time<br><b>Offered by:</b> Universities mostly, but also by some other registered higher education providers           |
| <b>Vocational Graduate Certificate and Vocational Graduate Diploma:</b><br>Similar to graduate certificates and graduate diplomas but focus more on competency in a workplace environment and provide a high level of employment related skills and knowledge.  | <b>Duration:</b> 6 months – 1 year full time<br><b>Offered by:</b> TAFE institutes and private providers   |
| <b>Masters and Doctoral Degrees:</b><br>Masters degrees are designed to provide an in-depth understanding in a specific area of knowledge through course work, research or a combination of both activities. Doctoral degrees recognise the highest levels of academic achievement and require an original contribution of knowledge to a particular field of study, usually through a substantial thesis.                                  | <b>Duration:</b> 1 – 3 years full time<br><b>Offered by:</b> Universities mostly, but also by some private higher education providers                          |



## What are my education and training options?

Courses may be studied on a full-time or part-time basis, either on campus or externally by distance education (often referred to as a flexible delivery option).

### Full-time study

On average, full-time students have 20 contact hours per week, but this will vary between courses and institutions. Students may need to attend lectures, tutorials or classes at the institution for up to five days a week.

### Part-time study

Students studying part-time usually take about half the required number of subjects (or units) per year that a full-time student would take. Some institutions allow as little as one subject per year. Some subjects may be available in the evening to suit work commitments. Not all courses are available on a part-time basis.

### Distance education (external study/flexible delivery)

Distance education is a flexible way to study in which attendance at the institution is either not required or kept to a minimum. Independent learning materials and support are provided, and study can be full- or part-time. The demand for this alternative method of delivery is increasing with the rapid growth in internet technology. You should contact the institution where you want to study to find out more about flexible study arrangements.

### Open Universities Australia

Open Universities Australia is owned and partnered by seven Australian universities. Open Universities Australia offers all Australians and overseas students the opportunity to study university subjects and VET units at their own pace, in their own time. The units you study and the qualifications you achieve are identical to those awarded to on-campus students. Most undergraduate units studied through Open Universities Australia are open access with no formal prerequisites.

For more information refer to the Open Universities Australia Handbook, which is available through newsagents, ABC Bookshops, leading bookshops or Open Universities Australia. For more details, phone (03) 8628 2555 or 1300 363 652, visit the website at [www.open.edu.au](http://www.open.edu.au) or email [advisors@open.edu.au](mailto:advisors@open.edu.au).

### Studying interstate

To apply for most courses at colleges and universities outside your home state or territory, you will need to contact the Tertiary Admissions Centre in the state or territory in which you wish to study.

These centres receive and process applications for admission to courses on behalf of many of the tertiary institutions in each particular state or territory. They do not select applicants or make decisions regarding their qualifications, but act as a central agency for all applications and advise applicants of the result of their application.

Lists of tertiary institutions covered by these organisations, and their contact details in each state and territory, are in the Useful addresses section.

## Studying overseas

As the world becomes more connected through common concerns, shared goals and technological advances, studying overseas as part of an Australian program of study is a great way to join and contribute to global communities and conversations. Students benefit from being exposed to other cultures, languages and education systems, while also enhancing their employability skills.

Learn more from the Study Overseas website at [www.studyoverseas.gov.au](http://www.studyoverseas.gov.au).

## Vocational Education and Training (VET)

### TAFE

There are 18 Victorian TAFE institutes including four universities with TAFE divisions.

### Private Registered Training Organisations (RTOs)

RTOs include group training companies, commercial enterprises, industry training centres, Adult Community Education organisations and some schools.

To find the latest information on TAFE courses you can:

1. Read the TAFE Courses Directory Victoria
2. Go to [www.tafe.vic.gov.au](http://www.tafe.vic.gov.au)
3. Call the TAFE Courses Line 13 18 23.

## Higher Education

### Universities

There are a number of universities offering higher education courses in Victoria. Most universities hold open days and expos during the year. It is a good idea to take advantage of these opportunities to look at the campus and to talk with students and staff. To contact particular universities, refer to the Useful addresses section.

### TAFE Institutes

Some TAFE institutes may offer a select number of bachelor degrees and other higher education qualifications. For more details, refer to the information on TAFE above.

### Other Registered Higher Education Providers

Details for other registered higher education providers are available through the Australian Qualifications Framework (AQF) register for each state and territory. Go to [www.aqf.edu.au](http://www.aqf.edu.au) and click on the link for the Victorian register.



# Australian Apprenticeships



## An Australian Government Initiative

### Australian Apprenticeships: an important learning pathway for young people

What are Australian Apprenticeships?

Australian Apprenticeships (often referred to as traineeships or apprenticeships) are a great career option. They combine practical work with structured training to give you a nationally recognised qualification and the experience you need to get the job you want.

Training is flexible and can be on-the-job, off-the-job or a combination of both. Australian Apprenticeships are available at a variety of qualification levels in most occupations, including traditional trades and a wide range of emerging industry sectors.

You do not have to wait until you leave school to get started. Australian School-based Apprenticeships are now offered by many schools, giving students the option of starting one while still at school.

### Success Story

Here is an example of someone who has discovered the benefits of doing an Australian Apprenticeship.

Blake McCarthy - 2009 Australian Apprentice of the Year  
A firm believer in lifelong learning, Blake McCarthy holds more than 10 certificates and qualifications, including first aid, heights training and engineering-and that's only set to continue as he continues along his career path.

Blake studied a Certificate III in Electrotechnology — Systems Electrician while he was employed by Electrical Group Training during his apprenticeship. "I used to work for a private contractor but I wanted to work in the industrial sphere and get more experience beyond domestic and commercial work," Blake says.

"The Instrumentation and Control course is a Certificate IV in Engineering, so when I finished my apprenticeship I was a dual trade Instrumentation Electrician." With his trade certificate and electrician's license under his belt, Blake is now leaning new trade skills through a traineeship in process plant operations with Woodside Energy.

Apprenticeships are important — not just for gaining skills, but for the economy as well. For Blake, the opportunities are endless, and his training will continue to open up career pathways and help him develop new skills. He's quick to recommend Australian Apprenticeships to others.

An active member of the Armadale Volunteer Fire and Rescue Service, he'll be able to spend more time on-call during the day, something he's always hoped to be able to do.

"The skills I learn at the fire and rescue service I can take to work, and vice versa. For example, teambuilding and communication skills are really important in a fire. There's danger and you've got to rely on your team mates and be able to communicate with them."

## A U S T R A L I A N A P P R E N T I C E S H I P S

Your Life. Your Career. Your Future.

### Five steps to finding an Australian Apprenticeship

#### Step one

Decide which career path best suits you. Australian Apprenticeships are available in over 500 occupations, so chances are there'll be one that matches your interests.

Explore the Careers area on the Australian JobSearch website at [www.jobsearch.gov.au/careers](http://www.jobsearch.gov.au/careers). It gives you everything you want to know about occupations in Australia.

#### Step two

Discuss Australian Apprenticeships with your career advisers or teachers. They will have access to plenty of information. Investigate your training and career options at:

[www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au)

[www.myfuture.edu.au](http://www.myfuture.edu.au)

[www.aajobpathways.com.au](http://www.aajobpathways.com.au)

[www.aatinfo.com.au](http://www.aatinfo.com.au)

#### Step three

Write or brush up your résumé! Don't forget to include:

- your contact details
- your school studies, achievements and work experience
- your interests, skills and career goals.

#### Step four

Find an employer willing to take you on as an Australian Apprentice. You can do this by:

- looking for job vacancies in your local paper or on the web
- visiting the Australian JobSearch website at [www.jobsearch.gov.au](http://www.jobsearch.gov.au)
- contacting the Job Services Australia provider in your region
- contacting a Group Training Organisation
- talking to your local Australian Apprenticeships Centre
- contacting employers in the industries you'd like to work in (go and see them and leave a copy of your résumé)
- writing job applications and going to interviews (see the Looking for work section).

#### Step five

Ask the employer willing to take you on as an apprentice to call their local Australian Apprenticeships Centre. The centre will help you and the employer with all the paperwork including the sign up to the National Training Contract.

Australian Apprenticeships Centres provide a one-stop-shop for those seeking to take up an Australian Apprenticeship as a career path. The centres provide advice and information on all aspects of Australian Apprenticeships as well as job matching services for employers and jobseekers.

Australian Apprenticeship Centres also operate as Skills and Training Information Centres (STICs). STICs provide information and advice on skills and training to prospective job seekers, existing workers and employers.



Australian Apprenticeships Centres are located at over 300 sites throughout Australia. Visit [www.australianapprenticeships.gov.au](http://www.australianapprenticeships.gov.au) to find a centre near you.

#### More information

To make sure you receive the most up-to-date information on Australian Apprenticeships, including details of Australian Apprenticeship Centres in your region, visit the Australian Apprenticeships website at [www.australianapprenticeships.gov.au](http://www.australianapprenticeships.gov.au) or call 13 38 73.

### Apprenticeships and Traineeships in Victoria

In Victoria, apprenticeships and traineeships are available full time or part time, subject to suitable industrial arrangements being in place. As a full time apprentice or trainee you work full time and attend training as part of your employment. As a part time apprentice or trainee you complete a qualification but over a longer period by working part time and attending training. A School-based apprenticeship or traineeship is a particular type of part time arrangement, where you attend work and/or training during your normal school week.

Apprenticeships and traineeships are available in a wide range of industries, and most can be undertaken while you are at school. These may give you credit towards your Victorian Certificate of Education (VCE) or Victorian Certificate of Applied Learning (VCAL). The School-based apprenticeship or traineeship may also contribute to the calculation of the ATAR (Australian Tertiary Admissions Rank), either directly by obtaining a study score (available in selected industries) or directly through an increment.

To find out more about School-based apprenticeships and traineeships, talk to the career adviser or Vocational Education and

Training (VET) coordinator at your school, or ask your school to contact one of the following:

- Victorian Department of Education and Early Childhood Development, Youth Transitions Division (03) 9637 3900
- Victorian Curriculum and Assessment Authority (03) 9651 4458

You can also search for general information on Victoria's apprenticeship and traineeship system on the Skills Victoria website at [www.skills.vic.gov.au](http://www.skills.vic.gov.au).



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## Australian Apprenticeships Pathways

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## Looking for a career in Construction or Property Services?

Building Trades, Fire Protection, Security, Real Estate, Spatial Sciences, Pest Management, Architecture, Waste Management and many more.

[www.constructmycareer.com.au](http://www.constructmycareer.com.au)

An initiative by The Construction and Property Services Industry Skills Council (CPSISC).





# VET in Schools

## What is VET in Schools?

VET in Schools refers to Vocational Education and Training (VET) courses undertaken as part of a senior secondary certificate.

VET in Schools courses enable you to earn credit towards a recognised VET qualification while you complete the general education curriculum for your Senior Secondary Certificate of Education (SSCE).

With VET in Schools you can:

- combine a vocational pathway with your SSCE studies
- complete (or work towards) a certificate I, II or III, or sometimes even a certificate IV qualification
- keep your options open to pursue further vocational education (such as courses at a Technical and Further Education (TAFE) institute), or move into higher education (such as undertaking courses at university).

The qualification or the credit towards a qualification is recognised by industry across Australia under the Australian Qualifications Framework (AQF). Some VET in Schools students are Australian School-based Apprentices.

VET in Schools courses are offered in a wide range of industry areas, from plumbing and financial services to hospitality and hairdressing. They can be a good way to explore different occupations, and to test whether you are interested in pursuing a future in that industry.

The best way to find out about your options is to contact your school's VET coordinator or career adviser. You can also find more information at <http://training.com.au>.

## Where can I do VET in Schools?

VET in Schools is now an established part of mainstream senior secondary education across Australia. Many schools offering the Senior Secondary Certificate of Education offer VET in Schools programs. About one third of Australia's senior secondary students are enrolled in a VET in Schools course.

Students may undertake their VET course at their secondary school or college, local TAFE institute, or with a private Registered Training Organisation (RTO). In addition, VET in Schools courses often include on-the-job learning with employers or in a simulated business environment. This is generally known as Structured Workplace Learning (SWL).

## Where can it take me?

VET in Schools qualifications can put you on a pathway through the VET sector (such as through TAFE) or through the higher education sector, or they can take you directly into the workforce.

If you continue your studies in the VET sector after finishing school you will receive credit for the VET in Schools courses or qualification you have successfully completed. VET in Schools qualifications may also be recognised for university entrance purposes — check with your career adviser to find out how VET in Schools courses may count towards university entrance requirements.

For more information about VET in Schools in Victoria, visit the Victorian Department of Education and Early Childhood Development website at

[www.education.vic.gov.au/sensecyouth/qualsprograms/vet.htm](http://www.education.vic.gov.au/sensecyouth/qualsprograms/vet.htm).

## VET in Schools Success Story

Madilyn Yuke was very busy during her final years at school, completing a Certificate III in Electrotechnology (Systems Electrician) through the Australian Technical College North Brisbane as part of her Senior Secondary Certificate in Education.

Fascinated with harnessing the properties of electricity to create, to repair and to help others, Madilyn proved her talents across a range of electrical activities, from the lighting at City Hall to replacing the switchboard at a women's shelter as part of her work experience.

Her determination and achievement earned her the status of role model for other young women, especially young Indigenous women, who could see a potential career for themselves in the trades.

Madilyn was offered a full-time apprenticeship with the Brisbane City Council straight after she graduated from Year 12. "Working with electricity means that great care must be applied to each job to guarantee absolute safety," said Madilyn's employer at Brisbane City Council. "Madilyn has excellent safety performance and skill retention. She does every job, no matter how small, to the best of her considerable ability. She's a great member of our team."

Madilyn won an Australian Vocational Student Prize and a Prime Minister's Award for Skills Excellence in School in 2008. She is now in the third year of her apprenticeship. Her work has included installing and maintaining traffic lights and electrical road signage and the excitement of working on the Queen Street Mall where she's installing optic fibre lights, architectural lighting and the public address system.



# Study, work and career support

## Meeting the costs of study

Most courses involve some cost. Costs vary from institution to institution and are usually related to the level and length of the course and the field of study. Contact the institution of your choice to ask about their fees and charges. If possible, compare these fees and charges with those charged by other institutions before you make your decision.

You will need to find out how much you will pay for tuition fees, service fees and any additional costs.

### Vocational Education and Training (VET)

#### TAFE institutes

Most TAFE places are subsidised by the Australian, state or territory governments. Tuition fees are calculated on an hourly basis, and the minimum and maximum amount that you will pay per year is set by the government.

These amounts vary from state to state. A full-time TAFE student in a government-subsidised place will generally pay somewhere between \$600 and \$2000 per year.

Fees usually have to be paid up front (when you enrol), but you may be able to negotiate part-payment. Most TAFE institutes charge lower fees to eligible concession holders.

A small number of TAFE courses are not subsidised — these are known as 'full-fee' or 'fee-for-service' TAFE courses. Tuition fees for these courses are based on the actual cost of providing tuition, and concessions do not usually apply.

Contact your local TAFE institute or your state TAFE information line to find out more about TAFE tuition fees, concessions and payment arrangements.

#### Private Registered Training Organisations (RTOs)

Private Registered Training Organisations (RTOs) provide the same kind of certificates and diplomas as TAFE institutes, but are free to set their own tuition fees. Some RTOs are non-profit community organisations, and offer low-cost courses to particular groups, such as local residents or unemployed people.

Other RTOs are businesses that may have state-of-the-art equipment, and charge fees that reflect this.

Try to contact several RTOs that are offering the course that you are interested in, and compare their fees, facilities and student support services to see which one suits your needs best.

#### Higher Education Loan Program (HELP)

HELP includes HECS-HELP, FEE-HELP, OS-HELP and VET FEE-HELP. The HELP schemes provide income contingent loans to eligible higher education and vocational education students to assist them with their tuition costs. HECS-HELP is available to higher education students enrolled in a Commonwealth supported place to pay their student contribution amount. OS-HELP assists eligible Commonwealth supported higher education students with some of the costs associated with overseas study.

VET FEE-HELP assists eligible full fee-paying and certain state government subsidised vocational education and training (VET) students with the payment of their tuition fees. VET FEE-HELP is available to eligible students in a VET accredited diploma, advanced diploma, graduate certificate or graduate diploma course through RTOs approved to offer VET FEE-HELP to its students.

More information regarding VET FEE-HELP including a list of all approved VET providers, can be found at [www.deewr.gov.au/vetfeehelp](http://www.deewr.gov.au/vetfeehelp), or by calling the VET FEE-HELP information line on 13 38 73.

#### Additional costs

There are other costs associated with study, from pens and books to make-up kits or multimedia equipment, depending on your course.

Ask your institution how much money you will need to allow for:

- textbooks and stationery
- equipment, tools and/or uniforms (as with some Australian Apprenticeships)
- materials, such as art supplies, timber or photographic film and processing
- residential sessions or excursions.

A computer and internet access is another possible cost — will you need this set up at home or does the institution have a computer laboratory that you can use?

You will also need to think about your accommodation and living expenses.

## Assistance from the Australian Government

### Centrelink

Centrelink is an Australian Government Agency delivering a wide range of services to the Australian community.

Centrelink's purpose is to assist people to become self-sufficient and improve the opportunities for people who are of working age to find a job, while supporting those in need. Centrelink advises customers about all relevant options including referrals to employment service providers, Centrelink specialists and other departments and agencies as appropriate.

Some people will need extra help to update their skills before they can find sustainable employment, while others will consider longer term prospects in terms of career goals and a return to full-time study, either vocational or tertiary, to achieve these goals.

The following information is a general guide to the options and payments available from Centrelink if you are planning to study or undertake training (or if you are currently studying or training).

**You can get more information by asking at your local Centrelink Customer Service Centre, phoning 13 28 50 or visiting [www.centrelink.gov.au](http://www.centrelink.gov.au). To speak to Centrelink in your language, call 13 12 02. You can find addresses for Centrelink Customer Service and Career Information Centres in the Useful addresses section.**

### Financial assistance

#### Youth Allowance

Youth Allowance helps young people while they are studying full time, looking for work, doing an approved training course or undertaking a combination of these activities. You may also be eligible for Youth Allowance if you are undertaking a full-time Australian Apprenticeship.

Young people claiming Youth Allowance who are not full-time students and do not already have Year 12 or an equivalent qualification (Certificate II or above) will need to:

- undertake a program of study or training to be eligible to receive Youth Allowance



- in some cases, undertake a combination of education and training with other approved activities.

For more information about Youth Allowance, ask at your local Centrelink Customer Service Centre, phone 13 24 90 or visit [www.centrelink.gov.au](http://www.centrelink.gov.au). For information in languages other than English, call 13 12 02.

#### ABSTUDY

ABSTUDY helps Indigenous secondary or tertiary students remain at school, go on to further study, or undertake an Australian Apprenticeship. For more information about ABSTUDY you can visit your local Centrelink Customer Service Centre, call 13 23 17 or visit [www.centrelink.gov.au](http://www.centrelink.gov.au).

#### Student Income Support Reforms

The Australian Government has made significant changes to student income support to improve access to, and better target, income support for students who need it most.

From 1 July 2010, the Parental Income Test threshold for the maximum rate of Youth Allowance or ABSTUDY increased from the \$33 300 to \$44 165 (in 2010). The way that income support reduces for incomes above the threshold also changed to a 20 per cent family taper. These changes mean many more young people will receive Youth Allowance or a higher payment rate.

#### New Scholarships

For the first time, scholarships are being provided as an entitlement for university students who are eligible for student income support. Since 1 April 2010, all university students receiving Youth Allowance, Austudy or ABSTUDY are now entitled to a Student Start up Scholarship for each year of their course, to assist with the high up front costs of textbooks and specialised equipment. In 2010, the Scholarship was valued at \$1300, increasing to over \$2128 in 2011 and is indexed annually.

The Relocation Scholarship provides assistance with the cost of establishing accommodation to university students receiving Youth Allowance or ABSTUDY who are dependants living away from the family home for study and independent students who are disadvantaged by personal and relationship circumstances and are unable to live in the family home. The Scholarship provides \$4000 for students in their first year at university and \$1000 in each year thereafter and will be indexed annually. Payment of the Relocation Scholarship commenced on 1 April 2010, benefitting dependent rural and regional students in particular.

#### Other changes to Youth Allowance include:

- from 1 April 2010 the age of independence was lowered from 25 to 24 years, reduced to 23 years from 1 January 2011 and will reduce to 22 years from 1 January 2012;
- from 1 April 2010 equity and merit-based scholarships are exempted from being treated as assessable income for means testing up to the value of \$6762;
- from 1 July 2010 the workforce participation criterion for independence under Youth Allowance was tightened. Students who have worked an average of 30 hours a week in one or more jobs for at least 18 months in a two-year period are considered independent;
- from 1 January 2012, the extension of Youth Allowance, ABSTUDY and Austudy to all masters by coursework study; and
- from 1 July 2012, an increase to the personal income threshold from \$236 to \$400 a fortnight, to enable students to earn more from part-time work before their payments are reduced.

Fact sheets providing detailed information on the reforms to student income support are available on the Department of Education,

Employment and Workplace Relations website at [www.deewr.gov.au/youthallowance](http://www.deewr.gov.au/youthallowance). A Student Assistance Estimator is also available on this website, which allows students to enter their parents' income level and family type to gain an indication of the level of support they might expect to receive under the Government's changes to student income support.

#### Assistance for Isolated Children

The Assistance for Isolated Children (AIC) scheme provides financial assistance to families of primary, secondary and certain tertiary students who do not have reasonable daily access to an appropriate state school due to geographical isolation or because they have a special health need.

For more information visit your local Centrelink Customer Service Centre, call 13 23 18 or visit [www.centrelink.gov.au](http://www.centrelink.gov.au). For information in languages other than English, call 13 12 02.

#### Pensioner Education Supplement

The Pensioner Education Supplement (PES) helps with the costs of undertaking full-time or part-time study. It is available to the recipients of some Centrelink and Veterans' Affairs income support payments.

For more information about PES, call 13 24 90 or visit [www.centrelink.gov.au](http://www.centrelink.gov.au). For information in languages other than English, call 13 12 02.

#### Veterans' Children Education Scheme

Veterans' Children Education Scheme (VCES) provides assistance to children of certain deceased, disabled, or incapacitated veterans or members of the defence or peacekeeping forces.

For further information visit the website at [www.dva.gov.au](http://www.dva.gov.au) or phone your state or territory office of the Department of Veterans' Affairs.

#### Transition to Independent Living Allowance

The Transition to Independent Living Allowance (TILA) provides one-off financial assistance to young people (aged 15-25) who are leaving state-supported care to help them make the transition to independent living.

For more information, visit [www.tila.org.au](http://www.tila.org.au).

The Australian Government has implemented a range of initiatives which provide assistance to Australian Apprentices in the form of income support or financial incentives. Refer to the Australian Apprenticeships website at [www.australianapprenticeships.gov.au](http://www.australianapprenticeships.gov.au) for more information.

#### Australian Apprenticeships Access Program

The Australian Apprenticeships Access Program (Access Program) helps job seekers who experience barriers to skilled employment to obtain and maintain an Australian Apprenticeship. The program helps disadvantaged job seekers by providing pre-vocational training linked to an Australian Apprenticeship pathway, intensive job search assistance and help adjusting to the workplace. Job seekers can also use the Access Program to get into employment, or further education or training.

For more information about the Australian Apprenticeships Access Program, contact your local Centrelink Customer Service Centre or call 13 38 73. More information about the program is also available at [www.accesstraining.deewr.gov.au](http://www.accesstraining.deewr.gov.au).

#### Support for Australian Apprentices with disabilities

The Australian Apprenticeships Incentives Program provides assistance for apprentices and trainees with disabilities including a wage support payment for the employer and assistance for tutorial, interpreter and mentor services to assist the apprentice.



## Education and training assistance

### School Business Community Partnership Brokers

School Business Community Partnership Brokers (Partnership Brokers) work to build partnerships between education and training providers, business and industry, parents and families and community groups to support young people to be engaged in education, perform better in school and realise their full potential.

Partnership Brokers will develop links to provide learning opportunities outside the classroom, mentoring opportunities for young people, help for parents to become better informed about learning and career options and give young people the chance to improve their employability and life skills.

### Youth Connections

Youth Connections is a program helping young people stay in school, get back into school or find alternative pathways that lead to attaining Year 12 or an equivalent Certificate II qualification. The program commenced in January 2010.

Youth Connections is flexible and individualised for each young person. Youth Connections focuses on improving educational, life skills and personal development outcomes for young people facing significant difficulties.

There are lots of ways to find out more: check out the website at [www.youth.gov.au/transitions](http://www.youth.gov.au/transitions); ask about Youth Connections at your local Centrelink office; or ask your school career adviser, welfare officer or teachers.

### Centrelink Career Information Centres

Centrelink's Career Information Centres (CICs) provide a comprehensive free service to all Australians. Specialist staff help students, the unemployed or people looking at changing jobs to make informed decisions about education, training and employment options and pathways.

For more information ask at your local Centrelink Customer Service Centre or visit [www.centrelink.gov.au](http://www.centrelink.gov.au). A list of CICs can also be found in the Useful addresses section.

### The Language, Literacy and Numeracy Program

The Language, Literacy and Numeracy Program (LLNP) assists job seekers whose basic English, reading, writing or mathematics skills are making it difficult for them to get a job.

For more information ask at your local Centrelink Customer Service Centre, call 13 28 50 (for Employment Services) or 13 24 90 (for Youth and Student Services), or visit [www.centrelink.gov.au](http://www.centrelink.gov.au). For information in languages other than English, call 13 12 02.

## Employment assistance

### Job Services Australia

Job Services Australia (JSA) is the new approach to employment services to better meet the needs of job seekers and employers.

JSA providers are organisations contracted by the Australian Government to provide employment services and are available across Australia in more than 2000 locations. They can provide or connect you to a wide range of government services to give you the skills and training you need.

Your Job Services Australia provider will work with you to develop an Employment Pathway Plan (EPP). The EPP is based on your individual needs and circumstances and sets out the services and training that will help you to find and keep a job.

This support can help you to:

- write a résumé
- assist with gaining better qualifications

- overcome any barriers you might have in gaining and keeping a job
- access other government services that might be of benefit.

One element of your EPP can be to undertake work experience. Work experience will help you gain new skills or further develop relevant workplace skills. It will also give you an opportunity to demonstrate your skills to potential employers, meet new work contacts and stay connected to the workforce. Taking part in work experience activities also provides opportunities for on-the-job and formal training that will increase your chances of getting and keeping a job.

Work experience activities can be part time, casual or full time, and either paid or unpaid. It can include:

- Work for the Dole and other voluntary work
- Green Corps environmental activities (which is now available to all eligible job seekers)
- work in a social enterprise
- Drought Force
- Defence Force Reserves
- structured training.

JSA providers work with local employers, Registered Training Organisations, state, territory and local governments, community and health services, and other organisations. They will know where the jobs are and what to do to help you get one.

The New Enterprise Incentive Scheme (NEIS) is also available to job seekers who wish to establish a new small business. NEIS provides accredited small business training, business advice and mentoring, as well as ongoing income support for up to 52 weeks.

All JSA providers can deliver specific services to meet your needs if you are a disadvantaged job seeker. You may also be given the choice of attending a specialist Job Services Australia provider, for example a youth or disability specialist or a provider with special skills to assist people from a Culturally and Linguistically Diverse (CALD) background.

A range of multilingual employment and related services brochures that cater to the needs of job seekers from a CALD background is available in more than 14 languages from JSA providers or online at [www.deewr.gov.au/Employment/JSA/Resources/Pages/translatedbrochures.aspx](http://www.deewr.gov.au/Employment/JSA/Resources/Pages/translatedbrochures.aspx).

For more information on Job Services Australia call 13 17 64, visit [www.deewr.gov.au/employment/jsa](http://www.deewr.gov.au/employment/jsa) or visit your local Centrelink office.

### National Green Jobs Corps Program

The National Green Jobs Corps Program assists young job seekers aged between 17 and 24 (inclusive) to get environmental work experience and training, leading to Certificate II qualifications.

For more information ask at your local Centrelink Customer Service Centre, call 13 28 50 (for Employment Services) or 13 24 90 (for Youth and Student Services), or visit [www.deewr.gov.au/newgreenjobs](http://www.deewr.gov.au/newgreenjobs).

### Assistance for Indigenous job seekers

Centrelink is the gateway to the Job Services Australia, the national network of Australian Government employment offices. Centrelink staff, including Indigenous Customer Service Officers, provide Indigenous job seekers with advice and assistance about employment, including Job Services Australia and ABSTUDY.

Specialist Indigenous Job Services Australia members are available in some locations. Centrelink can tell you if there is one in your area.

### Indigenous Wage Subsidy

If you are an Indigenous Australian and you register as a job seeker with Centrelink or a Job Services Australia provider, you may be eligible to attract Indigenous Wage Subsidy when an employer offers



you employment. You may also be given an Indigenous Wage Subsidy card to assist you with your job search. The Indigenous Wage Subsidy card lets employers know that they can receive Indigenous Wage Subsidy if they employ you.

For more information visit [www.deewr.gov.au/Indigenous](http://www.deewr.gov.au/Indigenous) or phone the Indigenous Employment Line on 1802 102 (Toll Free).

#### Indigenous Cadetship Support (ICS)

ICS is an Australian Government initiative that improves the professional employment prospects of Indigenous Australians. It links Indigenous tertiary students with employers in a cadetship arrangement involving full-time study and work placements.

The ICS is part of the Australian Government's Indigenous Employment Policy (IEP). The IEP aims to generate more employment opportunities for Indigenous Australians.

For more information visit [www.ics.deewr.gov.au](http://www.ics.deewr.gov.au) or phone the Indigenous Employment Line on 1802 102 (Toll Free). For further information about employers seeking Indigenous job seekers, visit <http://jobsearch.gov.au>, click on 'Advanced search' under 'Additional search criteria' and tick 'Indigenous jobs only'.

#### Assistance for job seekers with family responsibilities

##### Child Care Benefit

Child Care Benefit is a payment to assist families with the costs of child care. If you are eligible for Child Care Benefit you may also be entitled to receive the Child Care Rebate. The rebate is an additional payment which also helps with the cost of child care. To find out more, contact your local Family Assistance Office or call 13 61 50.

#### Multicultural Services

##### Multicultural Service Officers

Multicultural Service Officers (MSOs) help customers from culturally and linguistically diverse backgrounds to better access Centrelink services. There are MSOs in most Centrelink Customer Service Centres.

##### Languages other than English

Centrelink can provide interpreters (including AUSLAN interpreters) and also has bilingual staff who can provide assistance in languages other than English.

Detailed information on services available through Centrelink is available in over 50 languages on the website at [www.centrelink.gov.au](http://www.centrelink.gov.au). You can also phone the Centrelink Multicultural Call Centre on 13 12 02 to access bilingual information and services.

#### Other specialised assistance

Centrelink has specialist officers to help customers with specific needs. These include Social Workers, Financial Information Service Officers, Senior Customer Service Advisers, Indigenous Customer Service Officers, Multicultural Service Officers, Rural Service Officers and Community Contact Officers. To see if these officers can help you, visit a Centrelink Customer Service Centre or call 13 10 21.

## Scholarships

Each year, there are many different scholarships on offer for students in all three education sectors — schools, Vocational Education and Training (including TAFE), and higher education. Scholarships are offered for a variety of reasons:

- to help financially disadvantaged students
- to encourage young people in regional and remote areas to further their education
- to encourage students in a particular field of study

- to target groups who may need special assistance
- to recruit the highest academic achievers to a university's program
- for private companies to sponsor and mentor future employees.

The financial assistance offered ranges from small amounts to cover the cost of course materials up to thousands of dollars or the waiving of some or all of your course fees.

It is up to you to find out about and apply for a scholarship.

To find out more about scholarship opportunities you can:

- pick up a copy of a secondary schools guide that lists schools in your state and the scholarships that they offer (amongst other information) — there are several different publications available in larger newsagents
- talk to your career teacher
- enquire at your current or prospective institution — most universities have a scholarships officer
- check the online scholarships database on the myfuture website (post-secondary only) at [www.myfuture.edu.au](http://www.myfuture.edu.au) and the Going to Uni website at [www.goingtouni.gov.au](http://www.goingtouni.gov.au)
- keep an eye out for scholarship advertisements in your local newspaper and in the education supplement of major newspapers.

Do not limit your research to Australian, state and territory governments and educational institutions. Industry associations and service clubs offer schemes to help young people at post-secondary and postgraduate levels.

The Australian Defence Force also offers scholarship and employment options in a variety of fields. Contact Defence Force Recruiting on 13 19 01 or see Useful addresses for further contact details.

## Services offered by universities and TAFE institutes

Most universities and many TAFE institutes offer a range of services to assist students during their studies. These services include:

- accommodation
- support groups
- learning skills
- counselling
- career and employment centres
- disability services.

For more information on the services provided by universities in your state or territory, contact the institution you are interested in.

## Students with a disability and further education

The National Disability Coordination Officer (NDCO) Program is designed to assist people with disability, including young people, to move between school, Vocational Education and Training, university and work.

This includes all types of disability such as dyslexia, medical conditions and mental illness. If you have to put in extra effort at school because of your disability or condition, then the NDCOs may be able to help you with information and advice about options after school, and put you in touch with appropriate people to help you undertake further study and find suitable employment.

For further information, visit [www.deewr.gov.au/ndco](http://www.deewr.gov.au/ndco). A list of contact details for the NDCO programs in your state or territory can be found in the Useful addresses section.



## Disability Employment Services

If you are a person with a disability, injury or health condition, the new disability employment services can help you to find and keep a job.

Disability Employment Services are delivered by a network of organisations — both large and small — around Australia. Disability Employment Services providers can work with you to develop an individual program that focuses on your strengths and abilities and the barriers you face in getting a job. Once you are placed in a job your provider can also support you in the workplace if you need help to keep your job.

For more information about how Disability Employment Services can help you call a JobAccess Adviser on 1800 464 800 or visit <http://jobaccess.gov.au>. To locate local Disability Employment Services providers, visit <http://jobsearch.gov.au>.

If you have a disability or mental health condition and are already in employment, you may also be eligible to access a range of services, including the Job in Jeopardy services, and other assistance available through the JobAccess service. For more information call a JobAccess Adviser on 1800 464 800 or visit <http://jobaccess.gov.au>.

## State government assistance in Victoria

### Victoriaworks for Young People

The Victoriaworks for Young People program provides employment opportunities for hundreds of young people aged 15-24 who face barriers to employment to gain qualifications and practical experience through traineeships and apprenticeships in the Victorian public sector. Further information can be found at [www.workforce.vic.gov.au/victoriaworks](http://www.workforce.vic.gov.au/victoriaworks).

The Community Regional Industry Skills Program (CRISP II) CRISP II aims to contribute to the generation of industry development, new jobs, increased skills and improved services for rural and regional communities.

For further information call the Victorian Business Line on 13 22 15 or visit the website [www.business.vic.gov.au](http://www.business.vic.gov.au).

### Transition support for students with disability

The transition from school to adult life presents young people with disability with a whole new world of opportunities and challenges. Specialist advice and assistance can be provided by Transition Planners via the Department of Human Services (DHS).

Transition planners work with young people with disability to continue to develop their understanding of post-school options that they will have commenced via the Managed Individual Pathways planning initiative at school.

DHS supports young people with disability to transition to post school options via two programs:

1. Futures for Young Adults (FFYA)
2. Transition to Employment (TTE)

### Futures for Young Adults Program (FFYA)

Futures for Young Adults (FFYA) is a program funded by the Department of Human Services (DHS) Victoria that provides information, advice and support for up to three years to young people with disability, as they make the transition from school.

FFYA aims to give young people the best opportunity to make a successful transition to further education and employment outcomes as well as assisting young people to access services within their local community.

To be eligible for FFYA funded supports a young person must be:

- a permanent resident of Victoria
- 18 years of age before 31 December, in the year that they leave school
- currently receiving support through the Department of Education and Early Childhood Development's program for Students with Disability, or the equivalent in the Catholic or Independent school sector.

### Transition to Employment (TTE)

The TTE initiative is part of the FFYA program and is designed to provide assistance to young people with disability who are interested in pursuing employment, but who are not yet ready to move into employment or receive assistance through a Commonwealth employment program. TTE is focused on supporting this group of young people to build the skills, capacity and work experience to facilitate entry into the paid workforce.

TTE aims to:

- support young people with disability to develop work and industry related skills and qualifications
- improve access to employment opportunities for young people with disability
- increase the participation rates of young people with disability in the workforce
- build the capacity of young people with disability to independently participate in the community.

For further information about FFYA or TTE contact the Disability and Intake Response Service on 1800 783 783 or visit the website at [www.disability.vic.gov.au](http://www.disability.vic.gov.au) (go to Jobs, training & free time).

## Course information

### Short Courses Victoria

A short course can provide you with skills, knowledge, enjoyment or experiences that can enrich your life, expand your interests, improve your outlook or make you more employable.

The Short Courses Victoria website allows you to search for the course you want and find a course provider near home. Visit the website at [www.shortcourses.vic.gov.au](http://www.shortcourses.vic.gov.au).

### TAFE Courses Directory Victoria

There are over 1800 courses offered by TAFE in Victoria, ranging from accountancy to youth work.

The TAFE Courses Directory Victoria 2011 can help you to make the right choices by giving you an up-to-date listing of TAFE courses on offer across Victoria, as well as information about TAFE and Registered Training Organisations. For further information, call the TAFE Course Line on 131 823 or visit [www.tafe.vic.gov.au/TAFECourses](http://www.tafe.vic.gov.au/TAFECourses).

## Assessment of overseas school qualifications

Assessment of overseas secondary school qualifications up to the equivalent of Victorian government schools' Year 10 is done in-school. Speak to the principal or year level coordinator of the school you are interested in.

The Victorian Curriculum and Assessment Authority (VCAA) issues a Statement of Equivalent Qualification to people who have educational qualifications from overseas that are judged by the VCAA to be equivalent to completion of Year 11 or Year 12. For further details and application forms, contact the Student Records and Results office, Unit 41 St Andrews Pl, East Melbourne VIC 3002, or call



(03) 9651 4300. The VCAA may also assess overseas secondary school qualifications considered equivalent to Year 10 but does not assess qualifications above Year 12 level. For assessment of tertiary qualifications, visit the Overseas Qualifications Unit website at [www.workforce.vic.gov.au/oqu](http://www.workforce.vic.gov.au/oqu).

## Assistance for young people

### youthcentral

youthcentral is the Victorian Government's web-based initiative for young people aged 12-25. It provides a range of information on issues like jobs, study, travel, money and local events across Victoria as well as opportunities for young people to participate. Visit youthcentral at [www.youthcentral.vic.gov.au](http://www.youthcentral.vic.gov.au).



**LOOK** ▶  
for the signs of depression

**LISTEN** ▶  
to your friends' experiences

**TALK** ▶  
about what's going on

**SEEK HELP**  
together!

Depression and anxiety can affect anyone at any time. So if you notice your friend is struggling, do something about it. **Look, Listen, Talk and Seek Help Together.**

Help's available. Try contacting or visiting the website of one of these:

- [beyondblue](http://beyondblue.org.au) Info Line 1300 22 4636 [info@beyondblue.org.au](mailto:info@beyondblue.org.au)
- [www.youthbeyondblue.com](http://www.youthbeyondblue.com)
- [www.reachout.com.au](http://www.reachout.com.au)
- Lifeline 13 11 14
- Kids Help Line 1800 551 800
- [www.beyondblue.org.au](http://www.beyondblue.org.au)
- [www.headspace.org.au](http://www.headspace.org.au)
- [www.kidshelpline.com.au](http://www.kidshelpline.com.au)





# Looking for work

Looking for a job requires a positive attitude and careful planning. Job hunting is hard work but it can also be a journey of discovery. Your motivation level will affect your chances of finding employment.

You will feel much more confident approaching this new phase if you have done some thinking and preparation. It also helps to understand the job search as a process. Mastering this process is a very important step to developing skills in managing your own career. There are four steps to take when looking for work:

## Step 1: Preparing to look for work

- think about what you are really interested in and about your career goals
- collect and organise all relevant information about your skills, experience and attributes for a career portfolio
- find out what employers want.

## Step 2: Looking for a vacancy

- know where to look for work
- plan your job search systematically.

## Step 3: Applying for positions

- know how to apply for a job
- know how to prepare for an interview.

## Step 4: Reviewing your progress

- learn from each job application and interview
- think about what you could do differently.

## Step 1 Preparing to look for work

Your career portfolio

What is it?

A career portfolio is a collection of information about you, which will help demonstrate your skills, abilities and experiences to prospective employers.

A career portfolio is a personal collection of materials that documents you:

- work history
- professional development
- achievements
- employability skills
- career plans
- job applications and related information.

Building a career portfolio involves reflection and analysis. Through the process of putting together a career portfolio you will develop a greater awareness of your life, learning and work competencies, and produce a product that communicates your achievements and capabilities to others.

Your career portfolio can support you in your transition through and beyond school to further learning and work. It will change as your life changes, so keep your portfolio current even when you are working.

What is in it?

The types of things that you can put in your portfolio include résumés, cover letters, certificates, reference letters and referee lists, educational achievement records, awards, previous applications, personal and career plans, and job descriptions. More specific items can be added, depending on your particular field of interest.

### TIP

*Anything you save and organise now will help you prepare for a future job search or career transition.*

## What are employers looking for?

In addition to qualifications and technical skills, employers are often interested in what they describe as 'employability skills' when deciding who to employ and who to promote within their organisations.

Australian employers have identified eight groups of skills that they consider to be essential to successful workplace performance regardless of where you work or what work you do:

**Communication** that contributes to productive and harmonious relations with employees and customers

**Teamwork** that contributes to productive working relationships and outcomes

**Problem solving** that contributes to productive outcomes

**Initiative and enterprise** that contribute to innovative outcomes

**Planning and organising** that contribute to long and short-term strategic planning

**Self-management** that contributes to employee satisfaction and growth

**Learning** that contributes to ongoing improvement and expansion in employee and company operations and outcomes

**Technology** that contributes to the effective carrying out of tasks.

Through your portfolio you can demonstrate how you have developed and used these employability skills. Be mindful of them in your phone calls, cover letters, job applications and interviews.

## Step 2 Looking for a vacancy

Planning your job search

The more effort you put into job searching, the more likely you are to get something out of it. You should spend as many hours each day preparing for and looking for work as you expect to spend working. In order to do this, it is a good idea to have a plan for each week or day of your job hunt. You will not only improve your skills in writing job applications and handling job interviews, but also gain some experience planning and carrying out a day's work.

Knowing where to look

There are many places you can look for job vacancies, including the following:

**Employers:** telephone, write or visit organisations you would like to work for and ask if there are any suitable vacancies. Many companies and organisations have career information and job vacancy listings on their websites. Check the home page or 'about us' section for a link to 'recruitment', 'careers' or 'human resources'. Some companies, such as large retailers, now do all their recruiting online.

**Friends and relatives:** ask friends and relatives who work for organisations that you are interested in whether there is a suitable position for you.

**Newspapers:** local, state and national/interstate newspapers publish job vacancies. Wednesday and Saturday are the main days for job advertisements.



**Centrelink:** go to your local Centrelink or Job Services Australia provider office and use the facilities to view jobs on the Australian JobSearch database.

**Career advice services:** employers often notify schools of positions, and provide application forms for school leavers. Your career adviser should know of any job vacancies that your school has been told about.

**Employment agencies:** employment agencies match job seekers with employers' vacancies. You can find agencies in the Yellow Pages or employment section of the newspaper. Most agencies will ask you to complete a registration or application form and for some jobs a short test to check your typing speed or computer skills may be required.

**Notices:** check notices in shop windows, on community notice boards, on signs at the front entrance to a business, near on-site projects and outside factory gates.

**Internet:** there are many websites that list job vacancies in Australia.

Some examples are:

[www.jobsearch.gov.au](http://www.jobsearch.gov.au)

[www.defencejobs.gov.au](http://www.defencejobs.gov.au)

[www.seek.com.au](http://www.seek.com.au)

[www.mycareer.com.au](http://www.mycareer.com.au)

[www.careerone.com.au](http://www.careerone.com.au)

Most sites allow you to lodge a résumé online and subscribe to email alerts about job vacancies in your area of interest.

**Government jobs** are also listed online. Vacancies in federal government departments are advertised in the Australian Public Service Gazette, which is published each Thursday, and can be accessed at [www.apsjobs.gov.au](http://www.apsjobs.gov.au).

You can view vacancies in all states at [www.publicservicejobs.com.au](http://www.publicservicejobs.com.au). Vacancies in state and territory government departments are listed on the following sites:

[www.jobs.act.gov.au](http://www.jobs.act.gov.au)

[www.jobs.nsw.gov.au](http://www.jobs.nsw.gov.au)

[www.nt.gov.au/jobs](http://www.nt.gov.au/jobs)

[www.jobs.qld.gov.au](http://www.jobs.qld.gov.au)

[www.vacancies.sa.gov.au](http://www.vacancies.sa.gov.au)

[www.jobs.tas.gov.au](http://www.jobs.tas.gov.au)

[www.careers.vic.gov.au](http://www.careers.vic.gov.au)

[www.jobs.wa.gov.au](http://www.jobs.wa.gov.au)

### Step 3 Applying for positions

Most job advertisements ask you to submit an application by email or post. Check for the 'closing date' — this is the date by which the employer must receive your application. You will need to allow time for your application to be delivered if you are sending it by post. Sometimes the employer will ask you to fill in a written or online form, or obtain an information pack. Or they might ask you to 'address selection criteria' (see the end of this section for information on selection criteria). Read the job advertisement carefully and make sure you follow the directions exactly, or your application may not be considered.

Most job applications are written in two parts. The first part is a short letter, called a cover letter, saying that you would like to apply for the job and the reasons why. The second part is a summary of your personal details called a résumé or curriculum vitae (CV).

### Your cover letter

The aim of a cover letter is to convince the employer to find out more about you, by reading your résumé and meeting you for an interview.

A cover letter is your opportunity to let the employer know that you:

- can do the job — have the skills, qualifications and experience
- will do the job — have the motivation, attitudes and career goals
- will fit into the team — have a cultural match with the organisation.

An employer looks for:

- how well you communicate, including structure, grammar, spelling and punctuation
- your experience, skills and qualifications
- clues to your employability skills and attributes
- your professionalism and attention to detail.

What your cover letter includes

- **Your contact details**
- **Date**
- **Name and address of the contact person:** include their full name, title, company, street or PO Box, town or suburb, state or territory and postcode. If no name is given, try to find out by calling the organisation.
- **Salutation:** begin your cover letter with *Dear Mr/Ms/Dr* and their last name, e.g. *Dear Ms Rae*. If you cannot find out the contact person's name, use *Dear Sir/Madam*.
- **Opening paragraph:** explain your purpose and give the reader a reason to read on. State which position you are applying for (giving a reference number if applicable), mention how you found out about the vacancy and briefly explain why you are interested in the position.
- **Second paragraph:** demonstrate that you can do the job by matching your experience, skills and qualifications with what the employer has asked for. Use two or three selling points and focus on what you have to offer.
- **Third paragraph:** show that you are willing to do the job and can fit into the organisation. Address any remaining details from the advertisement, such as availability, transport requirements or start date, e.g. *I am available to work weekends or evenings as required and can start work at one week's notice to my current employer.*
- **Fourth paragraph:** thank the reader for considering the application and refer to your enclosed résumé and other attachments. Indicate that you would appreciate an interview to discuss your application.
- **Closing:** if your salutation was *Dear Sir/Madam*, end with *Yours faithfully*. If it was *Dear Mr/Ms/Dr Smith*, end with *Yours sincerely*. Leave a couple of lines for your signature, then type your full name.

Final checklist: How to prepare your letter

1. Create a fresh letter specifically for each application.
2. Type your letter on a computer using a plain font such as Arial or Times.
3. Leave space around the edges (margins) and between each paragraph.
4. Check the letter carefully for spelling, punctuation, grammatical and typing errors.
5. Ask someone else to check it as well.
6. Fix any mistakes.
7. Check the job advertisement again to ensure all relevant information is included.



8. Print your final copy on clean, white, A4 paper, and sign it just above your name at the bottom.
9. If references, school reports or certificates are needed, send copies, not the originals.
10. Keep a copy of your application to refer to in the interview or for future applications.

Figure 1: Cover letter

**Jesse Smith**  
 13 David Street  
 Wulagi VIC 3879  
 Phone: (03) 9123 4567  
 Mobile: 0405 111 111  
 Email: jsmith@email.com.au

7 February 2011

Ms Jane Rae  
 Personnel Manager  
 Australian Data Processing Pty Ltd  
 GPO Box 9967  
 Grenville VIC 3257

Dear Ms Rae

**Ref: Trainee Computer Operator**

I am applying for the position of Trainee Computer Operator, which was advertised in the Global News on 2 February 2011. I would be well suited to this position as I find working with computers exciting and challenging.

I am interested in data entry work and gained some practical experience while working in the accounting department at Venture Supermarkets. This work experience gave me valuable insight into computer operations and helped develop my proficient technology skills. The feedback I received from this work experience indicated that I was able to gain computing skills quickly and enthusiastically. As part of my Year 12 studies in Accounting, I covered data processing and achieved a Credit in my final exam.

Computer Operations is an area of work that I enjoy and would like to learn more about. Working at Australian Data Processing Pty Ltd, which has such a good reputation in the community, would match the employment path that I am pursuing. I would also look forward to developing my teamwork and communication skills by working as part of a team with co-workers of a growing company.

The enclosed résumé details my experience and relevant courses that I have completed, which I believe have prepared me to perform well in this position. Thank you for considering my application. I look forward to meeting you and providing further information in an interview. I can be contacted at any time on my mobile phone, on 0405 111 111.

Yours sincerely  
 Jesse Smith

#### TIP

*It is always a good idea to get someone to read through your application before you submit it.*

## Your résumé

A résumé is a summary of who you are and what you have achieved. Your résumé may be an employer's first contact with you, so you need to make a good impression. The résumé's appearance is the first thing the employer looks at — is it neat and well set out and does it include all the relevant information?

The layout of résumés varies a lot. However, you need to use a consistent format and style of writing within your résumé. Use easy-to-read fonts such as Arial or Times, and have the font size between 10 and 14.

Here are some suggested headings and the kind of information that should go under these headings.

- **Contact details:** your name, address, telephone number and email address.
- **Education and training:** show the highest educational level you have reached, where and when you studied. You may wish to include subjects you have studied and their results. Emphasise your accomplishments.
- **Employability skills:** it is important to provide evidence of these skills. See the heading 'What are employers looking for?' earlier in this section.
- **Other skills:** any other relevant skills that you possess, such as speaking another language, typing speed and accuracy, driving and equipment operating licences, or mathematical skills. Your skills show a prospective employer your range of abilities but they need to be related to the job.
- **Work history:** explain your past and present employment and what you have done or achieved. List your most recent experience first. Include job title, employer's name and location, dates of employment, a description of your responsibilities and duties, and a description of your achievements in each position.
- **Activities and interests:** include things like community activities, sports you participate in and other hobbies. Consider what the activities and interests you include say about you and your values. This section is optional. However, it helps an employer build a picture of you.
- **Referees:** it is usual to list three referees who can give details of your experience and comment on your personal qualities. Include each referee's name, title, employer, work phone number and email address, and briefly explain how they know you. Be sure to ask permission to list them and make sure they are comfortable with recommending you.

You can use the same résumé for several applications but it is a good idea to make small changes to highlight special skills or experience that apply to a particular job. Be sure to update your résumé when you gain new skills and experience or undertake new work.

#### TIP

*Check and double check your résumé for spelling, grammatical and typing errors. Ask someone else to check it as well.*



Figure 2: Résumé

## PERSONAL INFORMATION

Name: Elizabeth (Beth) Karen Reilly  
Address: 25 Whittington St, Parramatta NSW 2000  
Telephone: (02) 1234 5678  
Email: lizreilly@email.com.au

## EDUCATION

2011 Mt Lofty High School  
Currently in Year 12

|           |                   |         |      |
|-----------|-------------------|---------|------|
| Subjects: | Drama             | Level 2 | Pass |
|           | English           | Level 2 | Pass |
|           | Mathematics       | Level 2 | Pass |
|           | Social Science    | Level 2 | Pass |
|           | Science           | Level 2 | Pass |
|           | Textiles & Design | Level 2 | Pass |

Achievements: Elected Member of Student Representative Council, 2010  
Awarded Best and Fairest Player for School Hockey Team, 2009  
Set and Costume Designer for School Production, 2008  
Highest Achieving Student in Level 2 Science, 2007

## COMPUTER SKILLS

Can competently use the following software packages: Microsoft Word, Excel, Outlook, Adobe Photoshop.

## EMPLOYMENT HISTORY

2.12.10–present Haven Newsagency, Parramatta Cashier:  
Received, registered, and wrapped/packaged goods selected by customers. Advised customers on the selection and price of goods. Processed payments for goods utilising a variety of methods. Reconciled the cash register at the close of business. Stacked and displayed sale items. Performed inventory and stock control.

7.12.08–15.5.10 ColeMart, Mt Lofty Customer Service Officer:  
Received, scanned, and packed customer-selected goods. Processed payments for goods utilising a variety of methods. Reconciled the cash register at the close of business. Returned saleable stock to shelves during non-peak periods.

2.9.07–16.9.08 Jupiter Jeans (factory), Mt Lofty Work Experience:  
Observed meetings with customers to determine garment material, designs and styles. Learned to interpret designs to determine pattern specifications. Learned to cut out master patterns and lay out and cut fabric. Made garments using an industrial sewing machine.

## WORK SKILLS

Customer service — operated an electronic cash register, performed stock pricing and display, wrapped gifts, performed stock control and ordering.

Communication — delivered oral presentations during speech and drama lessons, and liaised with customers and colleagues at work.

Teamwork — participated in the school hockey team for inter-school weekly competitions, cooperated with staff and other students in the school production.

Leadership — organised a barbeque fundraiser for the 'Green Planet' school environmental group.

Initiative — co-founded the 'Green Planet' school environmental group.

Machine operation — learned to use a sewing machine during work experience.

Self-management — continue to balance study, extra-curricular activities and part-time work.

## HOBBIES, SPORTS AND INTERESTS

Swimming, school hockey team, modern music, photography, fashion.

## REFERENCES

School reference (copy enclosed)  
(It is normally not necessary to enclose references with a résumé. If the employer requests them, send copies not originals.)

## REFEREES

Ms Thompson  
Owner, Haven Newsagency  
12 Knowles Ave, Parramatta NSW 2222  
Ph: (02) 9123 4444  
thompson@havennewsagency.com.au

Mr Davies  
Manager, Jupiter Jeans  
22 Eversley St, Mt Lofty NSW 2123  
Ph: (02) 9123 5555  
davies@jupiterjeans.com.au



## Selection criteria

Many employers ask applicants to 'address selection criteria' in their job application. The employer will provide a list of skills, experience, qualifications and attributes called 'selection criteria'. To address the selection criteria, the applicant prepares a statement that explains how their experience matches each of the criteria, usually by giving examples.

It is unlikely you will need to address selection criteria early on in your career. However, preparing responses to selection criteria is a useful skill to develop, and one which you will probably need later in your career. You can find detailed information on addressing selection criteria on the Graduate Careers Australia website at [www.graduatemcareers.com.au](http://www.graduatemcareers.com.au), under the 'How to find a job' tab.

## The interview

The interview is your chance to convince the employer in person that you are the best candidate for the job. As with your cover letter, employers look for people who have suitable skills, qualifications and experience, motivation and those who will fit into the team. Treat each job interview as an opportunity to learn something and improve your interview skills.

### Preparing for the interview

As the interviewer will be comparing your skills and abilities with those of others, it is essential that you prepare so that you can present yourself well in order to convince the employer that you are the right person for the job.

Careful preparation for the interview will also help you to feel more confident:

- research the organisation, its products and services
- prepare some questions to ask the interviewer that show your knowledge of, and interest in, the industry
- practise interviews with friends or family
- re-read your application letter, the job advertisement and your résumé
- be sure you know how to get to the interview location.

### At the interview

Most interviewers realise that you will be nervous and will make allowances for it. However, you can create a good impression by being:

- **Punctual:** be at least 10 minutes early. This will also give you the chance to familiarise yourself with your surroundings (which may help you relax)
- **Well prepared:** take your job application folder to the interview
- **Polite:** look attentive, smile and shake hands when you meet the person who will interview you
- **Thoughtful:** take time to think a question through and then answer in a clear and logical way
- **Positive:** being positive about your skills and abilities shows the interviewer that you can do the job, will do it well and will fit into the organisation
- **Confident:** ask the interviewer to repeat or explain a question if you do not understand it
- **Calm:** an interviewer may ask you a difficult or unexpected question in order to test your ability to remain calm in a stressful situation. Try not to get flustered. Answer in a calm, polite and positive manner.

If you feel that tension is spoiling your performance, then the best way to relieve it may be to admit the problem: 'I'm feeling a bit nervous and

I'm not really doing justice to the questions you are asking me.' This is an honest admission that may improve the atmosphere of the interview.

### First impressions count

Turn your mobile phone **off** before you enter the interview room. Dress suitably — wear your best work outfit and keep jewellery, make-up and bright colours to a minimum. Be aware of your body language. Your mannerisms, gestures, body movements, posture, eye contact and tone of voice all communicate as much as your words do.

### TIP

*Research shows that most decisions are made in the first two minutes of an interview. Remember, you never get a second chance to make a first impression!*

### Questions employers might ask

Employers are not looking for a standard response to the questions they ask — there is no right or wrong answer. Rather, each question is an opportunity to show the interviewer what is distinct and unique about you. You may find it valuable to have answers prepared for some of the following common interview questions.

- Can you tell us a bit about yourself?
- Why do you think you are suitable for this position?
- Why would you like this job?
- What are your strengths/weaknesses?
- Do you work well with others, as part of a team?
- What have you got to offer us?
- What do you know about this organisation?
- Are you a member of any clubs or organisations?

If you do not understand a question, politely ask the interviewer to rephrase it.

Try to use action words such as *achieved*, *managed* and *improved*.

Answer the questions in a positive way that shows you are the best person for the job.

### Questions you might ask

At the end of the interview, the interviewer will often ask if you have any questions for them. Be ready for this — asking questions is one way of showing you are well prepared and interested in the job.

Some of the things you might want to know about are:

- what the job actually involves, including details such as daily duties and hours of work
- what the prospects are for advancement and training and whether training is on the job or after hours
- what the next step in the selection process is and when applicants can expect to hear whether they have been successful or not.

### After your interview

At the end of the interview, re-state your interest in the position. Thank the interviewers for their time, by name if possible. If the interviewer offers their hand, shake it firmly and sustain eye contact.

### Follow up

If you have not heard from an employer after a reasonable time, it is a good idea to follow up and ask if they have reached a decision. It shows you are still interested in the position. If you were not successful, try to get feedback on your interview performance, as this will help you next time. Try to learn from each interview and develop a better interview technique with practice and experience.



## Step 4 Reviewing your progress

What if you do not get the job?

If you do not get an interview after sending in an application, or do not get a job after attending an interview, think about whether you need to improve your cover letter, your résumé or your performance at the interview.

Some of the questions you might ask yourself are:

- Did I present my qualifications well and try to relate them to the job?
- Was my appearance too casual or untidy?
- Was I too forward or too timid?
- Did I appear enthusiastic and committed?
- Did I know enough about the company?
- Did I speak clearly when answering questions?
- Were my references suitable?
- Was I late for the interview?

It is an unfortunate fact of life that sometimes jobs are hard to find.

Despite all your efforts, there may be times when you cannot find a job. Do not despair. Your job search may take time and require patience. The more applications you write and the more interviews you have, the better you will perform. Be persistent and stay positive.

While you are looking for full-time work, you may wish to consider part time, casual or voluntary work. Being in the workforce helps your self-esteem and adds to your skills and employment record. It also means you are out in the workforce being noticed.

You should register through your local Centrelink office and start looking for a job as soon as you leave school. You can ask your local Centrelink office about income support and/or other assistance that you may be eligible for. See the Study, work and career support section for further details.

## What if you do get the job?

Information about wages, employment conditions and contracts

Before starting any sort of work it is very important to find out about and understand the employment conditions. Your employment conditions are governed by laws, and the way in which these laws affect you depends on whether you are working as an employee or as a sub-contractor. You need to be clear about which arrangement applies to you because they have different terms and conditions.

To find out more, call the Department of Education, Employment and Workplace Relations on 1300 363 079 (national office), your state or territory office on 13 33 97, or visit the website, [www.deewr.gov.au](http://www.deewr.gov.au).

The following organisations can also give you information about your employment or prospective employment.

**Fair Work:** For information about employment issues including wage rates, working conditions, employment contracts, recruitment and dismissal, visit the website at [www.fairwork.gov.au](http://www.fairwork.gov.au).

**National Association of Community Legal Centres:** For legal rights information. Visit the website at [www.naccl.org.au](http://www.naccl.org.au) or

☎ (02) 9264 9595 to find the closest Community Legal Centre to you.

**Australian Human Rights Commission:** An independent body that investigates and conciliates complaints of discrimination and breaches of human rights affecting employment. Visit the website at [www.hreoc.gov.au](http://www.hreoc.gov.au) or phone the Complaints Infoline on 1300 656 419.

## Further contacts in Victoria

Indigenous legal contacts

**Victorian Aboriginal Legal Service Co-operative Ltd (VALS)**

6 Alexandra Pde, Fitzroy VIC 3065

☎ 1800 064 685 (FREECALL) or (03) 9419 3888

Job Watch

This community legal centre specialises in employment issues for Victorian workers. It works closely with governments, unions, welfare groups, migrant communities and legal organisations in order to achieve the most satisfactory results. Job Watch is an independent 'watchdog' that offers a wide range of services to the community and is funded by the Victorian Government.

Contact Job Watch if you feel unsure about your rights, or have problems with a particular job, and they will be able to indicate if there have been enquiries or complaints made about that employment advertisement or workplace in the past. Alternatively, Job Watch will be able to offer advice or refer you to an appropriate organisation to pursue your complaint. A telephone advisory service offers free advice on any employment issue. The telephone number is (03) 9662 1933 or 1800 331 617 for regional Victoria (country callers). The Job Watch website is at [www.jobwatch.org.au](http://www.jobwatch.org.au).

Fair Work Ombudsman

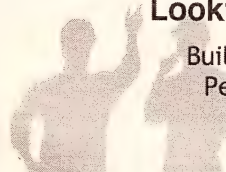
The Fair Work Ombudsman provides legal advice to employees and employers and helps them to understand their rights and obligations. The telephone number for the Fair Work Infoline is 13 13 94. It is open Monday to Friday, 8 am to 6 pm. The website address is [www.fairwork.gov.au](http://www.fairwork.gov.au).

## Looking for a career in Construction or Property Services?

Building Trades, Fire Protection, Security, Real Estate, Spatial Sciences, Pest Management, Architecture, Waste Management and many more.

[www.constructmycareer.com.au](http://www.constructmycareer.com.au)

An initiative by The Construction and Property Services Industry Skills Council (CPSISC).





# MAKE AN EDUCATED DECISION



## CAREER ADVICE

### Job Guide

Helping individuals to explore career options, *Job Guide* provides over 530 job descriptions including personal requirements, education and training, employment opportunities and related jobs. The guide also includes useful information on the job search process and helpful industry contacts. Suitable for students, those looking to change career, upgrade their skills or re-enter the workforce. Available in state- and territory- specific editions or as a national CD-Rom.

### OZJAC – Australian Courses and Careers Information System

OZJAC is the ultimate career planning tool. OZJAC provides comprehensive and up-to-date information on all accredited courses and the Australian universities, TAFEs and Registered Training Organisations that offer them. OZJAC is an interactive, easy-to-use CD-Rom and website-delivered career exploration tool that enables users to make the most educated decision about their career options. For a free trial of OZJAC, or more information, please visit [www.OZJAC.com.au](http://www.OZJAC.com.au) or Freecall 1800 682 133. Suitable for career advisers, libraries, employment organisations, students, those looking to change career, upgrade their skills or re-enter the workforce.

## SECONDARY EDUCATION ADVICE

### Good Schools Guide Victoria

*The Good Schools Guide* helps you to narrow down the list of schooling options in order to choose the right school for your child. Comprehensive information on every Victorian secondary school from every sector can easily be reviewed and compared. Extensive information is available through school profiles, including enrolment numbers, fees, VCE results, subjects offered, extra-curricular activities, support staff, contact details and much more. A complete scholarships directory is also available along with detailed editorial on the boarding school experience, school curriculum, how to enrol and advice on choosing the right school.

## HIGHER EDUCATION ADVICE

### Good Universities Guide

Containing Australia's only degree and university performance ratings, *The Good Universities Guide* carefully rates and ranks Australian universities and private higher education providers across 30 comprehensive fields of study. The Guide provides detailed information on choosing the right course, what to expect at university, the costs and financial assistance available, universities and private higher education provider profiles along with how the courses compare using relevant criteria, such as entry difficulty, duration, fees, study modes and cut-off scores. This title is suitable for both domestic and international students.

### The Good Universities Guide to MBA and Management Courses

*The Good Universities Guide to MBA and Management Courses* offers readers comprehensive and independent ratings and rankings across a number of characteristics, including fees, contact hours, qualifications, management experience and graduate salary. Extensive information on all the Australian MBAs, DBAs and other management programs, along with details of how to get in, GMAT requirements and specialisations are available in this Guide. This title is suitable for both domestic and international students.

### The Good Universities Guide to Postgraduate Courses in:

- **Accounting, Business and Law**
- **Arts, Education and Social Sciences**
- **Engineering, Science and Technology**

*The Good Universities Guide to Postgraduate Courses* series comprises Australia's only independent 5-star ratings and rankings of all Australian postgraduate degree courses and the universities and private colleges that offer them. The extensive range of information in the Guides will help you select not only the right program, but also the right campus through detailed field of study profiles, provider profiles and comprehensive course information including prerequisites, duration, fees, study modes and closing dates. These titles are suitable for both domestic and international students.



# Job descriptions

## A

### Aboriginal/Torres Strait Islander Health Worker

Aboriginal and Torres Strait Islander health workers may provide clinical or primary health care for individuals, families and community groups. They deal with patients, clients and visitors to hospitals and health clinics, and assist in arranging, coordinating and providing health care in Aboriginal and Torres Strait Islander community health clinics.

Aboriginal and Torres Strait Islander health workers may choose to specialise in particular health areas such as eyes, ears, women or infant care.

Aboriginal and Torres Strait Islander health workers may perform the following tasks:

- treat diseases or injuries
- maintain health records and statistics
- act as a communicator and interpreter on behalf of clients and other health workers
- take part in case management and follow-up, independently or with other health care providers
- provide health education to individual clients and health staff
- provide cultural education to people outside the cultural community
- provide life skills education to the community they serve
- provide counselling and referral for crisis problem cases
- provide input to the planning, development, implementation, monitoring and evaluation of all health programs in the community
- carry out administrative duties including budgeting and correspondence.

With experience, Aboriginal and Torres Strait Islander health workers may take on management responsibilities.

Aboriginal and Torres Strait Islander health workers may work in remote communities or in metropolitan areas. They may be required to work shifts or travel long distances to visit remote communities.

#### Specialisation

**ATSI Hospital Liaison Officer** - provides support and assistance to Aboriginal and Torres Strait Islander patients and families in hospitals and other health care facilities to help them feel comfortable and safe during their treatment. They help patients communicate with health care professionals, government agencies and other staff while they are in hospital.

#### Personal Requirements

- good communication and negotiation skills
- organisational ability
- cultural awareness and sensitivity
- able to work independently and as part of a team.

#### Education and Training

To become an Aboriginal and Torres Strait Islander health worker you usually have to complete a certificate in Aboriginal health care. To get into the certificate III course below you usually have to complete a certificate II. Contact the institution for full details.

You can also become an Aboriginal/Torres Strait Islander health worker through a traineeship in Aboriginal and/or Torres Strait Islander

Primary Health Care. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**Victorian Aboriginal Community Controlled Health Organisation Inc - Fitzroy Campus:**

Certificate III in Aboriginal and/or Torres Strait Islander Primary Health Care

#### Additional Information

Applicants must be of Aboriginal or Torres Strait Islander descent.

Aboriginal and Torres Strait Islander health workers have to be registered in order to practise in some states and territories.

#### Employment Opportunities

Aboriginal and Torres Strait Islander health workers are employed in hospitals and other health services in metropolitan and rural areas. They work in health care teams with doctors, nurses and other health care professionals.

Demand for Aboriginal and Torres Strait Islander health workers depends on the level of government funding and the use of health services by Aboriginal and Torres Strait Islander people.

#### For Further Information

- National Aboriginal Community Controlled Health Organisation  
☎ (02) 6248 0644 ✉ elaine@naccho.org.au  
🌐 www.naccho.org.au
- Koori Human Services Unit, Department of Human Services  
☎ (03) 9096 0511 ✉ koori@dhs.vic.gov.au  
🌐 www.health.vic.gov.au/koori
- Victorian Aboriginal Community Controlled Health Organisation  
☎ (03) 9419 3350 ✉ enquiries@vaccho.com.au  
🌐 www.vaccho.com.au

#### Related Jobs

Community Worker (p 122); Welfare Worker (p 436); Youth Worker (p 442).

## Accountant

Accountants analyse, report and give advice on the financial dealings of organisations and individuals, and advise on associated record-keeping and compliance requirements.

Accountants may perform the following tasks:

- assist in the formulation of budgetary and accounting policies
- prepare financial statements for presentation to boards of directors, management, shareholders, and statutory bodies
- conduct financial investigations, undertake audits, prepare reports, and advise on such matters as the purchase and sale of businesses, mergers, financing, suspected fraud, insolvency and taxation
- examine the income and expenditure of institutions
- provide assurance about the accuracy of information contained in financial reports and their compliance with statutory requirements
- provide financial and taxation advice on business structures, plans and operations
- liaise with bankers and brokers to establish funds management arrangements



- advise on the selection and application of computer-based accounting systems
- appraise cash flow and financial risk of investment projects.

Accountants may work on their own or with other accountants. Accountants in private practice have a high level of public contact. Some positions involve travel, which is often interstate or overseas.

#### Specialisations

**Auditor** - makes sure that financial statements are true and fair by checking that assets and liabilities mentioned in reports exist, analysing samples of work done and interviewing staff. Auditors are increasingly asked to audit figures relating to environmental emissions.

**Budget Accountant** - primarily concerned with the development and maintenance of budgeting systems. This involves monitoring budgets and comparing them with actual costs and revenues. They analyse records to determine trends, which assists in managerial control.

**Bursar** - responsible for the accounting and general business operation of schools or tertiary institutions. This may include fundraising.

**Finance Manager** - prepares reports for management, summarising the business's financial position in areas of income, expenses, capital usage and cash flows, and assists with the preparation of strategic plans, budgets and financial forecasts.

Finance managers also determine fund requirements and strategies to invest surpluses and assist in the development of accounting and management policies and procedures.

**Forensic Accountant** - analyses and prepares accounting documents for evidence, often for a court of law.

**Investment Analyst** - evaluates the value of companies for potential buyers and investors, and investigates businesses being sold, bought or merged.

**Liquidator and Receiver** - assists and advises businesses in financial difficulties and organises company closures in line with legal requirements and, in the case of bankruptcies, sells assets.

**Cost Accountant** - develops and directs systems so that costs can be recorded and analysed to work out each unit cost. This involves analysing changes that affect production costs (e.g. raw materials, manufacturing methods, factory overheads and wages).

They provide management with reports to assist in decision-making about production volumes, sale prices and additions or deletions to product lines and/or manufacturing or distribution resources.

**Systems Accountant** - analyses financial information needs for organisations by reviewing existing systems and working out the best way to meet those needs.

**Taxation Consultant/Taxation Agent** - prepares taxation returns and reports, provides advice on tax issues and handles disputes with taxation authorities.

**Treasurer** - plans short and long-term finance and advises on the financial consequences. They design and manage investment portfolios to minimise financial risk.

#### Personal Requirements

- good communication skills
- good presentation skills
- able to build rapport with clients
- able to analyse and solve problems
- good organisational skills
- discretion when dealing with confidential information
- professional and ethical
- able to work as part of a team.

#### Education and Training

To become an accountant you usually have to complete an advanced diploma in accounting or a degree with a major in accounting. Entry to the advanced diploma courses usually requires Year 12. To get into the degree courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Most universities in Victoria offer degrees in business or commerce with a major in accounting. Contact your preferred institution for further details.

#### Diploma Courses

**TAFE Victoria** - various locations:

Advanced Diploma of Accounting

#### Additional Information

Graduates may qualify for entry to the Institute of Chartered Accountants in Australia (ICAA), CPA Australia, and the National Institute of Accountants (NIA). Eligibility for membership varies and may require work experience and/or further study.

#### Employment Opportunities

Accountants work in diverse environments including sporting organisations, retail outlets, government organisations, finance companies, banks and building societies, real estate firms, taxation consultancies, community service organisations and accounting firms. They can work in partnership with other accountants or be self-employed.

Employment opportunities for accountants can vary from year to year for many reasons, such as changes in taxation and other commercial laws, changes in the demand for financial advice and planning services, industry restructuring and the general level of activity in all sectors of business. The financial viability of firms and advances in technology also have an effect on employment.

#### For Further Information

- CPA Australia (VIC Division) ☎ (03) 9606 9606  
✉ [vic@cpaaustralia.com.au](mailto:vic@cpaaustralia.com.au) 🌐 [www.cpacareers.com.au](http://www.cpacareers.com.au)
- Institute of Chartered Accountants in Australia (VIC Office)  
☎ (03) 9641 7400 ✉ [service@charteredaccountants.com.au](mailto:service@charteredaccountants.com.au)  
🌐 [www.charteredaccountants.com.au/students](http://www.charteredaccountants.com.au/students)
- National Institute of Accountants (VIC Division) ☎ (03) 8665 3150  
✉ [vicdivn@nia.org.au](mailto:vicdivn@nia.org.au) 🌐 [www.nia.org.au](http://www.nia.org.au)



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CFO ADIDAS GROUP  
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## Have you considered a career in accounting and finance?

You might be surprised to learn that accounting is about far more than just numbers. Accountants make decisions that affect entire businesses. Often, like Melissa, they work across marketing, sales, operations and other business functions. In fact many of the world's top CEOs have accounting backgrounds.

CPA Australia is one of the largest accounting bodies with a membership of more than 129,000 internationally and we can help you to start planning for a career in accounting and finance.

Visit our website to find out more.

[cpaaustralia.com.au](http://cpaaustralia.com.au)

**think+create**





## Related Jobs

Accounts Clerk (p 50); Actuary (p 52); Business Systems Analyst (p 98); Company Secretary (p 123); Computer Systems Auditor (p 125); Conveyancer (p 130); Economist (p 154); Financial Dealer and Broker (p 179); Foreign Affairs and Trade Officer (p 191); Management Consultant (p 253); Mathematician (p 261).

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Business and Economics

## Accounts Clerk

Accounts clerks record and put together summaries of the financial transactions of a business or other organisation for management purposes.

Accounts clerks may perform the following tasks:

- receive and record invoices and arrange payment
- prepare and send invoices to debtors
- check and process loan applications
- calculate and distribute wages and salaries
- prepare regular reports and summaries of accounting activities
- prepare financial statements and debtors' listings
- check customers' credit ratings
- verify recorded transactions and report irregularities to management
- prepare reconciliations of accounts.

Accounts clerks' work is supervised by accountants and their client contact is usually by telephone.

In larger organisations, accounts clerks' duties are divided among a number of different positions.

### Specialisations

**Bookkeeper** - maintains and reconciles records of financial transactions (such as sales, wages and petty cash) and prepares regular statements showing receipts, payments and balances of accounts.

**Costing Clerk** - calculates and investigates wages, materials, overheads and other operating costs.

**Collection Officer** - keeps records of people who are behind in payments, prepares reports of loans and accounts that have amounts owing and forwards on reports for legal action.

**Payroll Clerk** - calculates, prepares and distributes wages, taking into account overtime and deductions such as tax, Medicare levy, health insurance payments and superannuation.

### Personal Requirements

- aptitude for figures
- well organised
- able to work as part of a team
- able to meet deadlines
- good communication skills
- aptitude for working with computers.

### Education and Training

You can work as an accounts clerk without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have a certificate or diploma in business, financial services or accounting.

Entry to the certificate courses usually requires Year 10. Entry to the diploma courses usually requires you to gain your VCE. As subjects can vary between institutions, you should contact your chosen institution for full details.

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Certificate and diploma courses in these areas are widely available in Victoria. Check institution handbooks for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

Costs, duration and entry requirements may vary between courses. See the online entry for Accounts Clerk at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become an accounts clerk through a traineeship in Financial Services (Accounts Clerical). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Financial Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Accounts clerks are employed in a wide range of industries including finance, property, business services, manufacturing and government. Job opportunities depend on the state of the economy, the growth of new businesses and the level of computerisation of financial procedures.

Part-time, temporary and contract employment is becoming more common. Competition for some positions may be strong.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@fsunion.org.au](mailto:careerscentre@fsunion.org.au) ☎ [www.fsunion.org.au](http://www.fsunion.org.au)
- National Institute of Accountants (VIC Division) ☎ (03) 8665 3150  
✉ [vicdivn@nia.org.au](mailto:vicdivn@nia.org.au) ☎ [www.nia.org.au](http://www.nia.org.au)

#### Related Jobs

Accountant (p 47); Bank Officer (p 83); Bookmaker (p 91); Clerical Officer - Local Government (p 120); Financial Dealer's Assistant (p 181); Insurance Officer (p 232); Logistics Clerk (p 251); Stock and Station Agent (p 384); Transport Clerk (p 417).

## Actor

Also known as Film Star, Movie Star and Performer.

Actors portray roles in both live and recorded or filmed productions.

In the live performance area, an actor may perform in theatre, opera or variety. In the recorded medium, an actor may perform roles in theatre, film, radio, television, or in commercials.

Actors may perform the following tasks:

- study scripts, learn a part and interpret the role through speech, gesture and various other performance skills
- attend auditions for parts in productions, performing prepared or improvised pieces
- rehearse parts by memorising lines, cues and movements
- undertake extensive research for certain roles and productions
- under the guidance of a director, act the part of the film, television, stage or radio character in front of live audiences, cameras or microphones
- attend costume fittings
- sing and dance when required.

Actors need a great deal of patience and commitment, as most productions require long rehearsal schedules and many hours of memorising lines outside the rehearsal periods.

#### Personal Requirements

- determination
- self-confidence
- good memory
- stamina to perform at peak level
- ability to cope with changing situations.

#### Education and Training

You can work as an actor without formal qualifications. However, there are courses available that specialise in acting and it is advisable to undertake some formal training to improve your chances of gaining employment. Acceptance into formal courses is generally closely linked to your acting ability and interest, demonstrated by your previous amateur experience.

To get into the degree courses below you usually need to gain your VCE. Competition for places is strong, and an audition, practical test, workshop and interview may be required. The various universities have different prerequisites. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

The following universities offer degree courses majoring in drama or theatre studies, 3 years full time or equivalent.

*Australian Catholic University - Melbourne Campus*

*Deakin University - Burwood Campus*

*La Trobe University - Bundoora Campus*

*Monash University - Clayton Campus*

*University of Ballarat - Camp Street Campus*

*University of Melbourne - Southbank Campus*

*Victoria University - Footscray Park Campus*

#### Additional Information

Each November the National Institute of Dramatic Art (NIDA) and the Western Australian Academy of Performing Arts (WAAPA) conduct auditions in most states and territories for their courses. Contact NIDA on (02) 9697 7600 or WAAPA on (08) 9370 6594 for further details and application forms.

#### Employment Opportunities

To be successful as an actor, you will need to gain recognition from industry contacts, such as casting consultants and theatre, film, television and radio producers. Most employment for actors in Australia is provided by theatre companies, firms producing television programs, the Australian Broadcasting Corporation, advertising agencies making television and radio commercials, and film companies. Most actors move from one medium or type of work to another as opportunities arise.

There may be times when work is easy to find, or when there is a part in a long-term production. At other times, work may be scarce and actors may be out of work for some time. As a result, they may not be able to count on a regular income from acting. Most professional actors hire a talent agent or management agency to represent them and to help find them employment. Actors often have to support themselves between assignments with alternative employment. Actors sometimes form groups and produce their own work.

Factors that affect demand for an actor's services include the number and type of films, television programs and stage shows being produced; the level of government, private and corporate funding; and the quality of the individual's work and reputation within the industry.



#### For Further Information

- Innovation and Business Skills Australia [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Arts Administrator (p 76); Dancer (p 140); Entertainer (p 166); Film, Stage and Television Director (p 178); Media Presenter (p 266); Model (p 280); Musician (p 284); Stage Manager (p 382); Stunt Performer (p 387); Teacher - Music (p 394).

### Actuary

Actuaries analyse mathematical, statistical, demographic, financial and economic data in order to predict and assess the long-term risks involved in financial decisions and planning.

Actuaries may perform the following tasks:

- analyse statistics relating to factors such as death, illness and accident, and current trends in the economy to design new types of life insurance and superannuation policies
- work out appropriate premiums or contributions and rates of return, by calculating the future probabilities of events such as unemployment, illness or changes in interest rates
- make sure that insurance companies have sufficient financial reserves to meet claims
- advise companies on investment policy and the distribution of profits to policyholders
- undertake financial projections for, and measure and analyse the investment performance of, life insurance companies, financial institutions and government organisations
- provide advice to potential buyers or sellers of companies.

#### Personal Requirements

- good written and oral communication skills
- good mathematical ability and capacity to solve complex problems
- able to think clearly and logically.

#### Education and Training

To become an actuary you usually have to complete a degree majoring in actuarial studies at university. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the university for more information as requirements may change.

You may also consider other degrees that emphasise mathematics, statistics or economics.

#### Degree Courses

##### Monash University - Clayton Campus:

Bachelor of Commerce, majoring in actuarial studies, 3 years full time or equivalent

Bachelor of Economics, majoring in actuarial studies, 3 years full time or equivalent

##### University of Melbourne - Parkville Campus:

Bachelor of Commerce, majoring in actuarial studies, 3 years full time or equivalent

#### Additional Information

To become a fully qualified actuary you must obtain a Fellowship of the Institute of Actuaries of Australia by satisfactorily completing its examinations, a recognised professionalism course and gaining 12 months practical experience.

#### Employment Opportunities

This is a small, highly skilled profession, providing expertise that is in steady demand throughout the world. Most actuaries are employed by companies offering a range of financial services or by the government. Some actuaries work as consultants. An increasing number of actuaries are engaged in work connected with the stock exchange, such as investment management. Entry to this occupation is restricted by the standards required.

#### For Further Information

- The Institute of Actuaries of Australia (National Office)  
☎ (02) 9233 3466 ✉ [actuaries@actuaries.asn.au](mailto:actuaries@actuaries.asn.au)  
[www.actuaries.asn.au](http://www.actuaries.asn.au)

#### Related Jobs

Accountant (p 47); Bank Officer (p 83); Company Secretary (p 123); Economist (p 154); Insurance Agent (p 230); Insurance Broker (p 231); Insurance Officer (p 232); Mathematician (p 261); Statistician (p 383).

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**MONASH University**  
Business and Economics

### Acupuncturist

Acupuncturists treat disorders and illnesses by inserting fine needles into the skin to stimulate the body's defence mechanisms.

Acupuncturists may perform the following tasks:

- diagnose health problems through discussions with the patient, by checking the patient's pulse and by observing their colour, face and body features, nails, tongue and temperature variations in different parts of the body
- choose the places at which needles should be inserted based on a thorough knowledge of body systems
- insert needles under the patient's skin and move or manipulate them depending on the nature of the health problem
- apply massage or heat treatment using a slowly smouldering herb called moxa to warm and stimulate the acupuncture point.

Acupuncturists normally work on their own, but may also work within an established clinic in which other traditional forms of health care are practiced, such as naturopathy, osteopathy, chiropractic and herbal medicine.

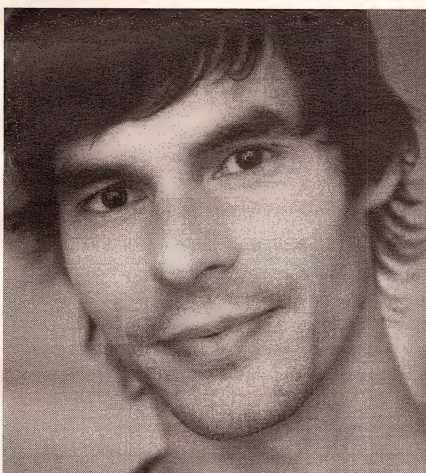
#### Personal Requirements

- patient, tactful and compassionate
- able to gain the confidence of their patients
- good with hands.

#### Education and Training

To become an acupuncturist you usually have to complete an advanced diploma or degree in acupuncture or traditional Chinese





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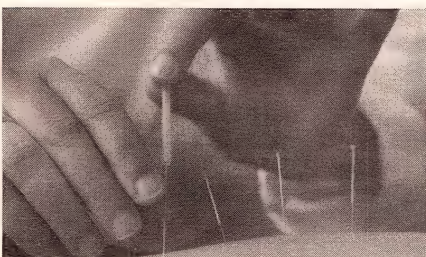
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medicine. Entry to the advanced diploma and degree courses below usually requires you to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and science are normally required. Applicants may also be required to attend an interview. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information.

There are no suitable advanced diploma courses available in Victoria. The following course is offered interstate.

#### Diploma Courses

*Australian Institute of Applied Sciences (QLD) - Brisbane Campus and Distance Education:*

Advanced Diploma of Acupuncture

#### Degree Courses

*Endeavour College of Natural Health - Melbourne City Campus:*

Bachelor of Health Science (Acupuncture), 4 years full time or equivalent

*RMIT University - Bundoora Campus:*

Bachelor of Health Science (Acupuncture and Chinese Manual Therapy), 4 years full time

*Southern School of Natural Therapies - Fitzroy Campus:*

Bachelor of Health Science - Chinese Medicine, majoring in acupuncture, 4 years full time or equivalent

#### Employment Opportunities

Most acupuncturists work in private practice, but some join other health care professionals in multi-disciplinary centres. Employment opportunities depend upon the level of community awareness and acceptance of alternative health care practices.

#### For Further Information

- Australian Acupuncture and Chinese Medicine Association  
☎ (07) 3324 2599 ✉ [aacma@acupuncture.org.au](mailto:aacma@acupuncture.org.au)  
🌐 [www.acupuncture.org.au](http://www.acupuncture.org.au)
- Australian Natural Therapists Association ☎ 1800 817 577  
(FREECALL) ✉ [info@anta.com.au](mailto:info@anta.com.au) 🌐 [www.anta.com.au](http://www.anta.com.au)
- Australian Traditional Medicine Society ☎ (02) 9809 6800  
✉ [info@atms.com.au](mailto:info@atms.com.au) 🌐 [www.atms.com.au](http://www.atms.com.au)

#### Related Jobs

Chiropractor (p 114); Massage Therapist (p 258); Natural Therapist (p 288); Osteopath (p 305).

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## Administrative Assistant

Also known as Clerk.

Administrative assistants perform a range of administrative tasks in an organisation.

Administrative assistants may perform the following tasks:

- sort and distribute incoming mail to areas and staff within the organisation, and despatch outgoing mail
- write business letters, reports or office memoranda using word processing equipment

- answer telephone enquiries from customers, attend to visitors and assist other staff in the organisation with their enquiries
- operate a range of office machines such as photocopiers, computers and faxes
- file papers and documents
- undertake other duties such as banking, credit control or payroll functions.

With experience and sometimes further study, it is possible to advance to higher positions, such as office administrator, record keeper, front line manager or legal administrator.

Administrative assistants may be required to carry out numerous tasks in a small office, or to concentrate on just one or two specific tasks in a larger office.

Administrative assistants usually work indoors, and may work alone or in a team with other administrative assistants, professional and technical staff and tradespeople. Experienced administrative assistants may undertake more complex tasks and responsibilities.

#### Personal Requirements

- able to work methodically, accurately and neatly
- good oral and written communication skills
- able to work as part of a team.

#### Education and Training

You can work as an administrative assistant without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have formal qualifications and/or experience in administration or business.

You can also become an administrative assistant through a traineeship in Business Administration. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Costs, duration and entry requirements may vary between courses. See the online entry for Administrative Assistant at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Business Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Administrative assistants are employed in most industry sectors, in a variety of fields including government administration, business services, education, health, legal and accounting services and real estate.

The continuing introduction of new technology requires administrative assistants to be flexible, multi-skilled and capable of responding to change.

#### For Further Information

- Australian Industry Group 🌐 [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Australian Institute of Office Professionals (National Office)  
☎ (03) 9388 9985 ✉ [nationaladmin@aiop.com.au](mailto:nationaladmin@aiop.com.au)  
🌐 [www.aiop.com.au](http://www.aiop.com.au)
- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)

#### Related Jobs

Bank Officer (p 83); Clerical Officer - Local Government (p 120); Logistics Clerk (p 251); Office Administrator (p 300); Public Servant - Australian Public Service (p 340); Receptionist (p 346); Recruitment



Consultant (p 349); Secretary (p 363); Settlement Clerk (p 367); Transport Clerk (p 417); Word Processing Operator (p 440).

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## Advertising Account Executive

Also known as Advertising Specialist.

Advertising account executives devise and coordinate advertising campaigns, which are created to encourage consumers to purchase particular products or services.

Advertising account executives may perform the following tasks:

- discuss with clients and other stakeholders the products to be advertised and obtain relevant information from clients such as product and company details, budget, marketing goals and marketing research
- brief other specialists in the agency, such as the creative team, media planners and researchers, on client requirements in order to develop the details of a campaign
- present draft campaign suggestions to clients along with a summary of the expenditure involved, and negotiate and arrange for modifications if required
- supervise and coordinate the work of the relevant production departments so that the campaign meets deadlines and budget requirements
- keep in contact with the client throughout the project and deal with problems as they arise
- assist the client with marketing strategies.

Advertising account executives usually work as part of a team. They work closely with their clients. Their work is usually carried out under pressure to compete for clients' accounts and to meet their requirements within strict deadlines.

### Specialisation

**Media Planner** - organises and purchases advertising space on television, radio, in magazines and newspapers or on outdoor advertising. They liaise between clients and the sellers of advertising space to make sure that the advertising campaign reaches the target market.

### Personal Requirements

- creativity
- imagination
- good communication skills
- organisational skills
- able to work under pressure
- analytical ability.

### Education and Training

To become an advertising account executive you usually have to study a degree at university with a major in advertising, marketing or commerce, and have relevant work experience. Degree courses in these areas are widely available at most universities in Victoria. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and higher level mathematics are normally required.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for further information.

### Additional Information

The Communications Council offers a Certificate in Advertising Communication for people working in the industry, which may assist your career progression. Refer to the Communications Council website for more details.

### Employment Opportunities

Advertising account executives work mainly for advertising agencies. Work is usually confined to metropolitan areas, as the advertising and promotions industry must have direct access to the major business districts, associated industry groups and media.

Career prospects are dependent on a reputation for effective advertising management. Employment prospects are affected by the availability of advertising funds in corporate and other organisations, the perceived effect of advertising on consumers, the type of advertising considered appropriate, and the number of special events and new developments that require advertising and promotional campaigns. Entry to the industry is very competitive.

### For Further Information

- The Communications Council ☎ (02) 8297 3800  
✉ [hello@communicationscouncil.org.au](mailto:hello@communicationscouncil.org.au)  
🌐 [www.communicationscouncil.org.au](http://www.communicationscouncil.org.au)
- Australian Marketing Institute ☎ 1300 737 445  
✉ [membership@ami.org.au](mailto:membership@ami.org.au) 🌐 [www.ami.org.au](http://www.ami.org.au)

### Related Jobs

Copywriter (p 131); Graphic Designer (p 206); Market Researcher (p 257); Marketing Officer (p 257); Public Relations Officer (p 339); Sales Representative (p 359).

## Aerospace Engineer

Also known as Aeronautical Engineer.

Aerospace engineers perform and supervise the design, development, manufacture and maintenance work of all types of flight vehicles. This may include military and civilian aeroplanes, helicopters, missiles, launch vehicles, spacecraft, satellites and control and guidance systems.

Aerospace engineers may perform the following tasks:

- plan and design aircraft, aircraft parts and support equipment by preparing drawings and making mathematical calculations, often aided by computer systems
- design modifications to systems such as fuel or airconditioning and outline installation procedures
- conduct tests to measure the performance of an aircraft or part, or to make sure that design specifications and airworthiness requirements are met
- supervise the assembly of airframes and the installation of engines, instruments and other equipment (e.g. when installing extra fuel tanks, decide where the tanks are to be placed and check that the support structure of the aircraft is strong enough to carry the extra weight)
- investigate failed engines or other aviation components
- develop procedures for the repair of aviation components
- work out and manage schedules for repairs and maintenance
- assess mechanical systems, flight characteristics and aircraft performance



- participate in flight test programs to measure take-off distances, rate of climb, stall speeds, manoeuvrability and landing capacities
- evaluate new and used aircraft and advise potential purchasers
- if working for the Civil Aviation Safety Authority, make sure of the airworthiness of Australian aircraft by assessing the manufacturer's information and the aircraft's structure, electrical and avionics instruments, and power plants.

In Australia, the majority of aerospace engineering work involves aircraft modification and assessment of damage. However, there is also a significant industry engaged in manufacture under licence.

#### Personal Requirements

- enjoy technical and engineering activities
- analytical and problem-solving ability
- good oral and written communication skills
- practical and creative ability
- able to work without supervision and accept responsibility
- able to work as part of a team
- normal colour vision may be required.

#### Education and Training

To become an aerospace engineer you usually have to study engineering at university with a major in aeronautical or aerospace engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, mathematics and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *Monash University - Clayton Campus:*

Bachelor of Aerospace Engineering, 4 years full time or equivalent

##### *RMIT University - City and Bundoora Campuses:*

Bachelor of Engineering (Aerospace Engineering), 4 years full time, (City Campus offers first 2 years, last 2 at Bundoora Campus)

#### Additional Information

Students who have completed at least one year of a 4-year, or two years of a 5-year, approved university course in engineering, may apply to join the Undergraduate Scheme in the RAAF or RAN. If accepted, students may choose to finish their degree at their chosen institution or join the Australian Defence Force Academy in Canberra.

#### Employment Opportunities

Career opportunities lie with aerospace companies, aircraft manufacturers, aeronautical consulting services, the RAAF and RAN. The Department of Defence employs aeronautical engineers in the Defence Research Centres in Adelaide, Melbourne and Sydney. The Civil Aviation Safety Authority also employs aerospace engineers to ensure compliance with design and certification standards, the functioning of associated electrical power plants and fuel systems, and overall airworthiness and flight handling in normal and emergency situations.

#### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) ☎ [www.defencejobs.gov.au](http://www.defencejobs.gov.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
☎ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career ☎ [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)

#### Related Jobs

Aircraft Maintenance Engineer (p 63); Civil Engineer (p 116); Electrical Engineer (p 156); Mechanical Engineer (p 263).

## Agricultural and Resource Economist

Agricultural and resource economists study and apply economic principles to the use and management of resources in the agricultural, fisheries, forestry and other primary industries.

Agricultural and resource economists may perform the following tasks:

- undertake research into factors that affect farm costs and market returns, such as the availability of farm credit, the way farms are established and operated, the potential cash return from crop sales and the distribution of farms in a particular region
- explore ways of raising the incomes and efficiency of primary producers
- conduct economic studies into areas such as livestock production, forestry, field crops, wool, cotton, fruit and winemaking
- examine and report on existing or alternative methods of grading, processing, storage, sale, marketing and transport of agricultural products
- monitor, review and report on rural conditions and domestic and overseas agricultural, economic and political developments that affect the efficiency of the agricultural sector
- advise on the proper use of natural resources
- conduct analyses and make recommendations to government and industry on economic issues and/or policies affecting the supply, demand and price of agricultural produce and resources.

#### Personal Requirements

- an analytical mind and ability to think logically
- good oral and written communication skills
- good at mathematics
- organisational and time management skills.

#### Education and Training

To become an agricultural and resource economist you usually have to study an agricultural and resource economics-related degree at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, mathematics and higher level mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *La Trobe University - Bundoora Campus:*

Bachelor of Agricultural Science, majoring in agribusiness, 4 years full time or equivalent

##### *Northern Melbourne Institute of TAFE - Epping Campus:*

Bachelor of Agriculture and Land Management, 3 years full time

##### *University of Melbourne - Dookie and Parkville Campuses:*

Bachelor of Agriculture, majoring in agricultural economics, 3 years full time or equivalent (first year split between Dookie and Parkville Campuses, second and third years at Dookie Campus)

#### Employment Opportunities

The Australian Bureau of Agricultural and Resource Economics - Bureau of Rural Sciences (ABARE-BRS) in Canberra is the largest employer of agricultural and resource economists in Australia. Public sector demand mainly arises from the need to replace staff who leave the occupation. There is also a demand for agricultural and resource economists in the private sector, particularly in agribusiness and banking. Many agricultural and resource economists work as consultants, as positions are often part time or seasonal. Job opportunities arise from new technologies and farming practices, and the development of new products.



### For Further Information

- Australian Bureau of Agricultural and Resource Economics - Bureau of Rural Sciences (ABARE - BRS) ☎ (02) 6272 2000  
🌐 [www.abare-brs.gov.au](http://www.abare-brs.gov.au)

### Related Jobs

Agricultural Engineer (p 57); Economist (p 154); Environmental Scientist (p 169); Natural Resource Manager (p 287); Statistician (p 383).

## Agricultural Engineer ✨

Agricultural engineers study and advise on the use of engineering science and technology in agricultural production and management of natural resources.

They apply their engineering knowledge and skills to solve problems relating to such things as sustainable agricultural production, the environmental impacts of intensive agriculture and the post-harvest handling of agricultural products.

Agricultural engineers may perform the following tasks:

- plan, supervise and manage the building of irrigation, drainage, flood and water control systems
- design, develop and manage the manufacture of agricultural machinery, equipment and instrumentation, such as sensing, measuring and recording devices
- plan and supervise the construction of farm and other related buildings such as controlled environments (e.g. intensively housed livestock, greenhouses, nurseries, aquaculture) and storage facilities (e.g. grain silos and dryers)
- supervise ground preparation, seeding and harvesting, spray technology, post-harvesting (processing and packaging) and transport equipment
- supervise the cleaning, grading, milling, mixing, food processing, packaging and distribution of produce
- perform environmental impact assessments
- analyse, advise and plan for effective soil conservation and the control of water logging and soil salinity
- conduct research and study the results of work on farms, forests and research stations
- prepare and present reports.

Agricultural engineers may work indoors or outdoors, in a forest, laboratory or design office, or on a farm or research station. Their work involves the use of computers.

### Personal Requirements

- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- able to accept responsibility and work without supervision.

### Education and Training

To become an agricultural engineer you usually have to study engineering at university with a major in agriculture. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required.

There are no suitable courses available in Victoria. The following course is offered in Queensland and is currently the only agricultural engineering degree offered in Australia. Contact the University of Southern Queensland for further information as requirements may change.

### Degree Courses

*University of Southern Queensland - Toowoomba Campus and Distance Education:*

Bachelor of Engineering, majoring in agricultural engineering, 4 years full time or equivalent

### Employment Opportunities

Agricultural engineers may be employed in private consulting firms, or by manufacturers and distributors of agricultural and irrigation equipment, corporate farms, intensive animal industries and food processing plants. In the public sector, jobs may be available with state or territory governments in such areas as water supply, agriculture, forestry, soil conservation and environment protection agencies. Employment can also be found overseas in both developed and developing nations.

### For Further Information

- Australian Institute of Agricultural Science and Technology  
☎ (02) 6163 8122 ✉ [members@aiastr.com.au](mailto:members@aiastr.com.au)  
🌐 [www.aiastr.com.au](http://www.aiastr.com.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- University of Southern Queensland Faculty of Engineering and Surveying ☎ 1800 269 500 (FREECALL)  
✉ [studyeng@usq.edu.au](mailto:studyeng@usq.edu.au) 🌐 [www.usq.edu.au/engsurv](http://www.usq.edu.au/engsurv)

### Related Jobs

Agricultural and Resource Economist (p 56); Agricultural Scientist (p 57); Agricultural Technical Officer (p 58); Chemical Engineer (p 110); Civil Engineer (p 116); Environmental Engineer (p 167); Environmental Scientist (p 169); Food Technologist (p 189); Mechanical Engineer (p 263).

## Agricultural Scientist ✨

Agricultural scientists study commercial plants, animals and cultivation techniques to improve the productivity and sustainability of farms and agricultural industries.

Agricultural engineers may perform the following tasks:

- collect and analyse data and samples of produce, feed, soil and other factors affecting production
- advise farmers and farm managers on techniques for improving the production of crops and livestock
- advise farmers on issues such as livestock and crop disease, control of pests and weeds, soil improvement, animal husbandry and feeding programs
- study environmental factors affecting commercial crop production, pasture growth and animal breeding
- study the effects of cultivation techniques, soils, insects and plant diseases on animal and crop production
- develop procedures and techniques for solving agricultural problems and improving the efficiency of production.

Agricultural scientists may work in laboratories, offices, in the field or in a combination of these. Some work alone but most work as members of a team. This can be alongside other scientists and farmers and often with other people involved in providing services to the agricultural industry.

Agricultural scientists who specialise as winemakers deal with the research and production of vines and the microbiology and chemistry of winemaking. See the separate entry for Winemaker for more information.



### Specialisations

**Agricultural Adviser** - assists and advises farmers, agricultural businesses, rural industries and government in the production, processing and distribution of farm products. They may specialise in areas such as livestock, crop, dairy, fruit production, water use, farm economics or land management.

**Agricultural Biotechnologist** - uses techniques such as genetic engineering to improve the quality and diversity of plant and animal products.

**Agricultural Entomologist** - investigates the causes of insect outbreaks and researches methods to control them through integrated pest management, biological control and chemical means.

**Agricultural Microbiologist** - is involved in the identification and control of disease organisms, often working in specialised areas such as food technology and environmental management.

**Agronomist** - deals with soil management and methods of improving growth and quality in a wide range of crops.

**Animal Scientist** - conducts experiments in controlled breeding or in embryo manipulation. They investigate the nutritional values of different feeds and the environmental conditions necessary to improve productivity and quality of animal produce.

**Crop Physiologist** - studies the mechanisms of normal plant growth and the effects of environmental conditions and chemicals upon them.

**Horticultural Scientist** - applies scientific knowledge to the cultivation and propagation of plants such as fruit, vegetables, berries, flowers, trees, shrubs and crops. They may also work in landscape design to create parks and gardens, with concern for the conservation and preservation of natural resources.

**Soil Scientist** - studies the biology, chemistry, physics and hydrology of soil systems, and conducts research and advises on matters relating to conservation and management.

### Personal Requirements

- able to analyse and solve problems
- interested in science and the environment
- able to make accurate observations
- good oral and written communication skills
- well organised with supervisory ability
- able to work as part of a team.

### Education and Training

To become an agricultural scientist you usually have to study science at university with a major in agriculture-related studies. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, higher level mathematics, biology, chemistry and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

#### *La Trobe University - Bundoora Campus:*

Bachelor of Agricultural Science, 4 years full time or equivalent

#### *University of Melbourne - Parkville Campus:*

Bachelor of Science, majoring in agricultural science, 3 years full time or equivalent

#### *University of Melbourne - Parkville and Dookie Campuses:*

Bachelor of Agriculture, majoring in agricultural science, 3 years full time or equivalent

### Additional Information

Holders of a degree in agricultural science or a related discipline may apply to become members of the Australian Institute of Agricultural Science and Technology.

### Employment Opportunities

Employers include state, territory and federal government departments and the private sector. Careers are usually in research, advisory roles, teaching, management, administration, marketing and media. Agricultural scientists may also work in horticulture and with flower growers, nursery operators and commercial firms trading in horticultural products such as frozen foods, seeds and fertilisers. They may also work in the field of landscape design and the mining industry to assist with land regeneration.

Although employment opportunities exist overseas, available positions frequently require postgraduate qualifications or work experience.

### For Further Information

- Australian Institute of Agricultural Science and Technology  
☎ (02) 6163 8122 ✉ members@aiaast.com.au  
🌐 www.aiaast.com.au
- Australian Institute of Horticulture Inc ☎ (02) 8001 6198  
✉ info@aih.org.au 🌐 www.aih.org.au
- HR Services Team, Landmark Operations Limited  
✉ asklandmark@landmark.com.au 🌐 www.landmark.com.au
- Department of Primary Industries ☎ 13 61 86  
✉ customer.service@dpi.vic.gov.au  
🌐 http://new.dpi.vic.gov.au

### Related Jobs

Agricultural Engineer (p 57); Agricultural Technical Officer (p 58); Biotechnologist (p 89); Environmental Engineer (p 167); Environmental Scientist (p 169); Farmer/Farm Manager (p 172); Forester (p 194); Park Ranger (p 309); Primary Products Inspector (p 330); Veterinarian (p 428); Viticulturalist (p 430); Winemaker (p 437); Zoologist (p 443).

## Agricultural Technical Officer ★

Agricultural technical officers provide complex technical support and advise on aspects of agriculture such as research, production, servicing and marketing.

Agricultural technical officers may perform the following tasks:

- work with agronomists (crop scientists) using small plot experiments to compare plant varieties and test the effects of various treatments on growth and yield
- work with soil scientists to study irrigation techniques and analyse plants used in soil treatment experiments
- work with plant breeders to produce new strains and to select superior products
- work with animal breeders using artificial insemination techniques to produce offspring that mature earlier
- record and interpret experimental data in field experiments
- interpret aerial photographs and prepare maps showing soil and vegetation patterns
- assist in the chemical analysis and laboratory culture of micro-organisms which cause diseases in plants and animals
- carry out research and provide advice on various technical issues.

Agricultural technical officers may work in laboratories, in the field, or both. They usually work in a team with other scientists.



## Specialisations

**Artificial Insemination Technical Officer** - uses artificial insemination techniques and controlled breeding experiments to develop improved livestock and herd strains.

**Horticultural Technical Officer** - works on new methods of planting, fertilising, harvesting, processing and transporting crops, including fruits, vegetables, flowers and ornamental nursery crops.

**Poultry Technical Officer** - is involved in the production, management, processing and marketing of eggs, chickens, turkeys and game birds, including breeding and disease control.

## Personal Requirements

- good at science
- able to analyse and solve problems
- enjoy agriculture and the environment
- able to make accurate observations and recordings
- able to work as part of a team
- enjoy working outdoors.

## Education and Training

To become an agricultural technical officer you usually have to complete a certificate IV or diploma in an agricultural discipline. However, entry to this occupation may be improved if you have a degree in agricultural science.

Entry to the certificate and diploma courses below usually requires Year 12. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physics and mathematics are normally required. The various institutions have different prerequisites and some have flexible entry requirements or offer external study. Contact the institutions you are interested in for more information as requirements may change.

## Certificate Courses

**TAFE Victoria** - various locations:

Certificate IV in Agriculture

## Diploma Courses

**TAFE Victoria** - various locations:

Diploma of Agriculture

**South West Institute of TAFE - Glenormiston Campus:**

Diploma of Rural Business Management

**Sunraysia Institute of TAFE - various locations:**

Diploma of Rural Business Management

**Goulburn Ovens Institute of TAFE - various locations:**

Advanced Diploma of Agriculture

**Wodonga Institute of TAFE - Wodonga Campus:**

Advanced Diploma of Agriculture

## Degree Courses

**La Trobe University - Bundoora Campus:**

Bachelor of Agricultural Science, 4 years full time or equivalent

**Northern Melbourne Institute of Technology - Epping Campus:**

Bachelor of Agriculture and Land Management, 3 years full time

**University of Melbourne - Dookie and Parkville Campuses:**

Bachelor of Agriculture, 3 years full time or equivalent

**University of Melbourne - Parkville Campus:**

Bachelor of Science, majoring in agricultural science, 3 years full time or equivalent

## Employment Opportunities

Agricultural technical officers are employed by state, territory and federal government departments, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), pastoral companies, agricultural chemical manufacturers and farm consultancies.

In the past, government organisations were the major employers. However, government positions are now often offered as short-term contracts based on project funding. Much of the work has been contracted out to private businesses and consultancy practices.

## For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 http://agrifoodskills.net.au
- Australian Institute of Agricultural Science and Technology  
☎ (02) 6163 8122 ✉ members@aiaast.com.au  
🌐 www.aiaast.com.au
- Rural Skills Australia 🌐 www.ruralskills.com.au
- Department of Primary Industries ☎ 13 61 86  
✉ customer.service@dpi.vic.gov.au  
🌐 http://new.dpi.vic.gov.au

## Related Jobs

Agricultural Engineer (p 57); Agricultural Scientist (p 57); Animal Technician (p 67); Biotechnologist (p 89); Environmental Engineer (p 167); Farmer/Farm Manager (p 172); Food Technologist (p 189); Forest Technical Officer (p 192); Forester (p 194); Horticultural Tradesperson (p 216); Jackaroo (p 236); Landcare Worker (p 241); Meteorological Technical Officer (p 272); Pest and Weed Controller (p 313); Science Field Officer (p 362).

## Air Force General Entrant

Also known as RAAF General Entrant.

Air Force general entrants perform a variety of specialist Air Force tasks on the ground and in the air.

After initial training, an Air Force general entrant may specialise as an/a:

**Air Surveillance Operator** who operates radar systems, high technology computers and advanced display and communications systems for air defence.

**Airborne Electronics Analyst** who operates airborne electronic systems to identify ships and submarines and to assist with search and rescue operations.

**Airfield Defence Guard** who maintains security of both Air Force bases and installations, takes part in land search and rescue operations, and instructs base personnel on security matters.

**Clerk** who maintains and services the administration system. Tasks range from filing and processing to operating audiovisual equipment.

**Clerk (Supply)** who purchases and manages Air Force inventory, maintains funds ledgers and controls petty cash.

**Communications and Information System Controller** who manages part of the military communication system, dealing with both secure and non-secure voice, data, image, video and message services.

**Cook** who prepares food, as well as distributes it to an entire Air Force base.

**Crew Attendant** who provides safety, comfort and in-flight service for passengers and crew on RAAF transport aircraft. They can also act as Air to Air Refuelling observers and assist in the loading and unloading of cargo and passengers.

**Dental Assistant** who helps with dental procedures, writes reports and looks after the accounting and appointment records.

**Firefighter** who provides airfield fire and rescue services, installs, maintains and services first aid and fire appliances, trains base personnel and assists the community in emergency situations.



**General Hand** who completes a wide variety of unskilled and semi-skilled tasks including maintaining tool and equipment stores, cleaning buildings and vehicles, general maintenance and the preparation of field camps for exercises.

**Geospatial Imagery Intelligence Analyst** who collects, analyses, stores and distributes intelligence in the form of images of ground force status and operational capability.

**Medical Assistant** who is employed in Air Force hospitals and Unit Health Facilities to assist registered nurses with nursing care to patients.

**Photographer** who is employed on duties associated with the capture and processing of visual information for the RAAF, other arms of the Australian Defence Force, commercial organisations and the media.

**Plant Operator** who operates heavy earth moving equipment to construct, maintain and repair various sites.

**Security Policeperson** who is responsible for military law enforcement, detection and investigation of offences and responding to emergency incidents.

**Signals Operator (Linguist or Technical)** who operates modern communications receiving and analysis equipment in various operational roles.

**Supplier** who records, controls and issues Air Force equipment, takes part in the loading, unloading and refuelling of aircraft, and has responsibility for receiving, issuing and despatching explosives.

Working conditions can vary according to the area of specialisation. Most work is at Air Force bases.

#### Personal Requirements

- willing to accept responsibility
- able to lead and motivate others
- willing to serve anywhere in Australia or overseas
- Australian citizenship or permanent residency
- at least 17 years of age
- meet aptitude and medical requirements.

#### Education and Training

To become an Air Force general entrant you usually have to complete Year 10 or equivalent with passes in English and mathematics. However, airborne electronics analysts need to complete Year 11 with passes in English, mathematics and physics, and geospatial imagery intelligence analysts need to complete Year 12 with passes in English and mathematics.

To join the Air Force you will also need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

If you are successful, you will begin your Air Force training with a 10-week recruit course at RAAF Base Wagga in Wagga Wagga, NSW. This will be followed by specialist training.

As different specialisations have different entry requirements you should contact your nearest Defence Force Recruiting Centre for specific requirements.

#### Additional Information

The Australian Defence Force Gap Year program offers students or recent school leavers the opportunity to gain relevant skills and job training over a 12-month period. See the Australian Defence Force website for more details.

#### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round.

#### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Air Force Officer (p 60); Air Force Technician/Tradesperson (p 61); Army Soldier (p 74); Navy Sailor (p 292); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327).

## Air Force Officer

Also known as RAAF Officer.

Air Force officers command, train and motivate Air Force airmen and airwomen for peacetime and wartime tasks. Air Force officers work at the middle and executive management level within the Air Force (RAAF). Officers specialise in various areas depending on their training and qualifications.

An Air Force officer may specialise as an/a:

**Administration Officer** who manages people and finances, working as a Squadron or Unit Administrative Officer, Base Accounting Officer, Training Officer or Recruiting Officer.

**Aeronautical Engineering Officer** who works on aircraft and their associated ground support systems including aircraft structures and engines.

**Aerospace Engineer Officer - Armament** who works on weapons and weapon systems at an Air Force base or in research. They may also work in bomb disposal teams.

**Aerospace Engineer Officer - Electronics** who maintains the power generation and distribution equipment in aircraft. This includes electronic control systems, instrument and navigational systems, radars and sonar equipment.

**Air Combat Officer** who uses radar systems to detect enemy aircraft and provide fighter pilots with the tactics to intercept them and engage in combat.

**Air Traffic Control Officer** who manages the safe flow of military and non-military aircraft around Air Force bases and military areas, assisting in flight planning, coordination and control.

**Airfield Engineer Officer** who manages, assesses, repairs and maintains the operation of the Air Force airfields, roads, buildings and engineering services.

**Dental Officer** who treats and diagnoses tooth and mouth problems of Air Force personnel.

**Education Officer** who is responsible for a variety of educational activities such as developing and assessing training courses, counselling students, supervising instructors or teaching.

**Environmental Health Officer** who monitors pollution levels, advises on preventative health measures and develops policies and strategies for maintaining a healthy environment.

**Ground Defence Officer** who secures and defends Air Force bases from ground attack and is responsible for training all base personnel in ground defence.

**Intelligence Officer** who presents detailed intelligence briefs, interprets and translates foreign languages or analyses electronic warfare information.

**Legal Officer** who practises Military Discipline law, as well as Civil and Military Administrative law, and International and Operations law. They assist RAAF Boards of Inquiry, appear before Courts Martial or provide legal aid to Air Force personnel.



**Logistics Officer** who provides supply support and acquires equipment for the operation of the Air Force.

**Medical Officer** who provides health services for Air Force personnel in RAAF hospitals, first aid posts or in emergency situations.

**Nursing Officer** who provides care to Air Force patients and assists doctors in medical procedures in RAAF hospitals, remote locations or medical evacuations.

**Pharmaceutical Officer** who dispenses, controls, orders, and stores prescription drugs and health materials for RAAF hospitals and base medical flights.

**Pilot** who flies combat and support aircraft on a variety of missions and roles, conducts flying lessons and carries out planning and administrative duties.

**Radiographer** who provides medical imaging services to Air Force patients on base and off base during military operations, exercises and peacekeeping deployments.

**Security Police Officer** who looks after the security of Air Force bases by managing Security Police, supervising ground defence training and working on security policy development.

#### Personal Requirements

- meet aptitude and medical requirements
- willing to accept responsibility
- ability to lead and motivate others
- willing to serve anywhere in Australia or overseas
- at least 17 years of age
- Australian citizenship or permanent residency.

#### Education and Training

To become an Air Force officer you usually have to gain your VCE with passes in English and three other units, preferably including mathematics and a science unit.

To join the Air Force (RAAF) you will need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

If you are successful there are four different education and training pathways for Air Force officers. You may apply to join the Air Force as a non-degree direct entry officer cadet, you may complete a degree through the Australian Defence Force Academy (ADFA), you may apply as a sponsored undergraduate or you may apply after completing one of a selected range of specialist degrees.

Entry to all officer cadet positions requires the completion of the 16-week Initial Officer Course at RAAF Base East Sale, Gippsland, Victoria. This is followed by specialist training with the RAAF.

Entry to ADFA usually requires you to gain your VCE with a pass in English and mathematics, as well as an appropriate score in prerequisite subjects relevant to your chosen area of study. All ADFA students are required to complete a 3-year course of academic study at the Academy, followed by single service military training.

Sponsored undergraduates are full-time university students who are currently studying for a degree relevant to the Air Force at a recognised tertiary institution. They can apply for sponsored undergraduate entry into the Air Force after having completed at least one year of their degree.

Following completion of their specialised degree, they must then complete the 16-week Initial Officer Course before becoming officers in their specialised field.

People who have already completed a specialised degree may apply for direct entry into the Air Force as Graduate Officers. These

applicants are required to complete the 16-week Initial Officer Course before undertaking training in their specialised field. Different specialised occupations have different entry requirements. For full details on this option, contact your nearest Defence Force Recruiting Centre.

#### Additional Information

To enter ADFA, you must be at least 17 years of age and have satisfied entry requirements for a relevant degree at the University of New South Wales or equivalent. Applications usually close in September of the year prior to entry.

Year 11 students who apply to ADFA may be eligible for an ADFA Education Award. The Education Award is presented annually to Year 12 students in recognition of outstanding achievement shown during the ADFA entry recruiting process.

#### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis.

#### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Air Force General Entrant (p 59); Air Force Technician/Tradesperson (p 61); Air Traffic Controller (p 62); Army Officer (p 73); Navy Officer (p 291); Pilot (p 322); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327).

## Air Force Technician/Tradesperson

Also known as RAAF Technical and Trade.

Air Force technicians and tradespersons undertake a variety of technical and trades-based jobs in the Air Force, including assisting with the construction and maintenance of Air Force equipment and buildings.

An Air Force technician or tradesperson may specialise as an/a:

**Aircraft Life Support Fitter** who makes sure all aircraft safety equipment, such as parachutes, life rafts, anti-gravity suits, flying helmets and breathing apparatus, is fully operational.

**Aircraft Structural Fitter** who fixes structural components like wings, fuselage and engine structures on all military aircraft.

**Aircraft Surface Finisher** who is responsible for applying and maintaining aircraft protective paint coatings.

**Aircraft Technician** who provides ongoing maintenance to military aircraft, engines, airframe and engine systems.

**Avionics Technician** who is responsible for the ongoing maintenance and service of electronic equipment specifically designed for flying, servicing and refuelling aircraft. They diagnose faults and test, adjust, replace and solder miniature electronic components.

**Carpenter** who designs, constructs, maintains and repairs all non-aircraft buildings and equipment, doing everything from site planning and excavation to tiling and glazing.

**Communications Electronic Technician** who maintains, operates and repairs all ground telecommunication equipment and electronic ground support equipment.

**Electrician** who installs, maintains and repairs power and lighting systems, for both industrial and domestic installations, and manages the operation of base emergency power supply.



**Environmental Health Surveyor** who inspects working and living conditions, monitors pollution levels, provides occupational health and safety recommendations, and makes sure all hygiene and sanitation standards are met.

**Ground Mechanical Engineering Fitter** who manufactures and modifies tools, jigs and dies. They also test and service ground support equipment and workshop plant machinery, and repair mechanical, electrical and hydraulic systems.

**Ground Support Equipment Fitter** who maintains motor transport vehicles, ground support equipment, aircraft arrester systems, marine craft, refuelling equipment and installations.

**Laboratory Technician** who tests human biological material to aid medical practitioners in the diagnosis, monitoring and prevention of disease.

**Medical Assistant** who performs minor medical procedures, working closely with doctors at RAAF hospitals on emergency aeromedical evacuations and on operational deployments.

**Musician** who performs at concerts, ceremonies, parades and dances, and plays a range of musical styles as part of an Air Force band including classical pieces, rock, jazz and swing.

**Plumber** who installs, maintains and repairs Air Force water systems, including sanitary and sewerage systems, roofing, guttering, hot water systems and gas appliances.

#### Personal Requirements

- at least 17 years of age
- able to pass applicable medical and aptitude tests
- willing to accept responsibility
- enjoy leading and motivating others
- willing to serve anywhere in Australia or overseas
- Australian citizenship or permanent residency.

#### Education and Training

To complete a trade within the Air Force, you will need to complete Year 10 with passes in English, mathematics and science. Some specialisations require you to have an existing trade or technical qualification.

To join the Air Force you will also need to successfully complete a series of aptitude tests, medical assessments and selection interviews. All new recruits are required to undertake basic Air Force training at RAAF Base Wagga, in Wagga Wagga, NSW, prior to commencing employment training in their chosen job role. All trade qualifications obtained in the RAAF are nationally recognised.

To become an aircraft life support fitter, aircraft structural fitter, aircraft technician, avionics technician, communications electronic technician or a ground support equipment fitter involves additional Air Force training. The duration of this training varies for each specialisation, and you may need to travel interstate.

To enter the Air Force as an aircraft surface finisher, carpenter, electrician, environmental health surveyor, ground mechanical engineering fitter, laboratory technician, medical assistant, musician or plumber you will need to hold appropriate civilian qualifications. Please contact your closest Defence Force Recruiting Centre for full details.

#### Additional Information

Chemicals used by aircraft surface finishers may be harmful to unborn children. As a consequence, the Air Force does not allow women to participate in this occupation.

#### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round.

#### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Air Force General Entrant (p 59); Air Force Officer (p 60); Aircraft Maintenance Engineer (p 63); Army Soldier - Technician (p 74); Navy Technical Sailor (p 293).

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### Air Traffic Controller

Air traffic controllers manage the safe and orderly flow of aircraft into, out of and between airports in Australia and with overseas regions adjoining Australian airspace.

Air traffic controllers may perform the following tasks:

- maintain radio contact with pilots to keep aircraft separated in 'corridors' of controlled airspace, on air routes and near major airports
- make sure that aircraft operate only on pre-arranged routes and altitudes
- use radar to monitor and control aircraft movements
- provide information and assistance to pilots and emergency services during in-flight emergencies.

Air traffic controllers operate in shifts, often out of normal office hours, and are required to work on any day of the year.

#### Specialisations

**Enroute Controller** - is responsible for the safe management of air traffic over most of the Australian mainland and on oceanic routes. The use of satellite and digital data communications is increasing in this type of control. Enroute controllers are employed in Brisbane and Melbourne.

**Terminal Area Controller** - uses radar to manage and arrange the flow of aircraft which arrive at and depart from major city airports. They are responsible for the controlled airspace surrounding an airport out to a distance of approximately 30 nautical miles. Terminal area controllers are employed in Adelaide, Brisbane, Cairns, Coolangatta, Melbourne, Perth and Sydney.

**Tower Controller** - works from control towers at aerodromes and is responsible for all aircraft and vehicle movements on the taxiways and runways, and in the immediate surrounding airspace. There are 26 towers located at capital cities and busier regional airports around Australia.

#### Personal Requirements

- able to make quick and accurate decisions
- aptitude for working with computers
- confident, highly responsible, self-motivated, and independent, but able to work in a team
- good understanding and clear practical application of the English language
- Australian or New Zealand citizenship, or Australian permanent residency
- at least 18 years of age
- able to satisfy aviation medical requirements.

#### Education and Training

To become an air traffic controller you usually have to gain your VCE with passes in English, mathematics and a science subject (preferably physics).



Airservices Australia and the Royal Australian Air Force (RAAF) are the only trainers and employers of air traffic controllers in Australia.

Applicants for Airservices Australia must undergo a comprehensive selection process, including an online cognitive ability test, a computer-based aptitude test, an assessment day involving a competency-based interview, police checks, medical examinations and a drug test. Once selected, trainees undertake extensive training, covering theoretical and practical subjects as well as on-the-job instruction at the Learning Academy in Melbourne to complete the requirements for their Air Traffic Control Licence. Trainees are employed on a probationary basis while undergoing training, becoming permanent on successful completion of the course.

To become an air traffic controller with the RAAF requires entry into the Air Force as an officer and completion of Air Force training courses in air traffic control. See the entry for Air Force Officer.

#### Employment Opportunities

Airservices Australia runs courses for Air Traffic Control Trainees in their Learning Academy throughout the year. The dates for these are advertised on the Airservices Australia website. Final selection for training is very competitive in both Airservices Australia and the RAAF.

Job opportunities depend on growth in air traffic and the introduction of new technologies.

#### For Further Information

- Air Traffic Control Recruitment, Airservices Australia  
☎ 1300 301 120 ✉ [avrecruit@airservicesaustralia.com](mailto:avrecruit@airservicesaustralia.com)  
🌐 [www.airservicesaustralia.com](http://www.airservicesaustralia.com)
- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Air Force Officer (p 60); Pilot (p 322).

## Aircraft Maintenance Engineer

Also known as Aircraft Maintenance Technician and Aircraft Maintenance Engineering Tradesperson.

Aircraft maintenance engineers install, maintain and repair aircraft engines, airframes, airframe systems, electrics, instrument and radio systems and aircraft sheetmetal.

Aircraft maintenance engineers may perform the following tasks:

- dismantle, inspect, and reassemble aircraft engines, electrical systems or aircraft frames
- test aircraft communication equipment, instruments and electronic systems
- install electrical circuits and equipment
- conduct routine pre-flight inspections.

#### Specialisations

**Aircraft Maintenance Engineer (Avionics)** - maintains, inspects and undertakes fault diagnosis of electrical, electronic, instrument and radio systems, components and accessories on aircraft. These include generator and power distribution systems, protection systems, autopilot and integrated flight systems, environmental control systems, and radar and communication systems.

**Aircraft Maintenance Engineer (Mechanical)** - maintains, inspects and undertakes fault diagnosis of airframe and engine systems, and components and accessories on aircraft. These include landing gears, wheels and brakes, pressurisation, pneumatic and hydraulic systems, flight control systems, environmental control systems, fire detection and prevention systems, oxygen systems, undercarriage, and ice and rain protection systems.

**Aircraft Maintenance Engineer (Structures)** - produces, maintains and repairs sheetmetal, bonded and non-metallic composite material and components on aircraft. They must be familiar with airframe, engine and electrical components. They carry out a wide variety of metal forming and joining processes using hand and power tools, and work with fibre-reinforced plastic materials of many types.

**Aircraft Mechanic (Avionics)** - overhauls, repairs, modifies and tests a range of electrical, electronic, instrument and radio communications and navigation system components in a workshop environment, after they have been removed from the aircraft. These include generator and power distribution systems, protection systems, autopilot and integrated flight systems, environmental control systems, and radar and communication systems.

**Aircraft Mechanic (Mechanical)** - overhauls, repairs, modifies and tests airframe and engine components in a workshop environment, after they have been removed from the aircraft structure. These include landing gear, wheels and brakes, pressurisation, pneumatic and hydraulic devices, environmental control components, gas turbine engines and associated engine components.

#### Personal Requirements

- enjoy technical and engineering activities
- medically fit, with good hearing and vision (colour blindness may make people unsuitable for some aircraft trades)
- good hand-eye coordination
- able to concentrate
- neat and accurate
- attention to detail
- able to work in confined spaces and at heights on platforms around aircraft.

#### Education and Training

To become an aircraft maintenance engineer you usually have to complete an apprenticeship in Aeroskills (Avionics/Mechanical/Structures). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You can also become an aircraft maintenance engineer through completion of a Certificate II in Aeroskills. Entry to the course below usually requires Year 10. Contact the institution for more information as requirements may change.

#### Certificate Courses

*East Gippsland Institute of TAFE - Sale, Fulham Campus:*

Certificate II in Aeroskills

#### Additional Information

After graduating with an Aircraft Maintenance Engineer (AME) trade certificate and gaining the necessary experience, you may undertake further training and/or examinations set by the Civil Aviation Safety Authority (CASA) towards becoming a Licensed Aircraft Maintenance Engineer (LAME). An aircraft maintenance engineer can only work on aircraft under the supervision of a licensed aircraft maintenance engineer.

#### Employment Opportunities

Aircraft maintenance engineers may be employed by general aviation companies, domestic and international airlines, aerospace companies and the Australian Defence Force.



#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Australian Licensed Aircraft Engineers Association  
☎ (02) 9554 9399 ✉ [alaea@alaea.asn.au](mailto:alaea@alaea.asn.au)  
☎ [www.alaea.asn.au](http://www.alaea.asn.au)
- Qantas - Apprentice Training ☎ (02) 9691 8801  
✉ [apprenticetraining@qantas.com.au](mailto:apprenticetraining@qantas.com.au)  
☎ <http://careers.qantas.com.au>
- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) ☎ [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Aerospace Engineer (p 55); Air Force Technician/Tradesperson (p 61); Electrician (p 160); Electronics Engineering Associate (p 162); Engineering Tradesperson - Fabrication (p 164); Instrument Fitter (p 229); Navy Technical Sailor (p 293); Pilot (p 322).

## Airline Baggage and Freight Handler

Also known as Baggage Handler.

Airline baggage and freight handlers work in the loading services area of an airline's operations, transferring items between airport buildings and the aircraft.

Airline baggage and freight handlers may perform the following tasks:

- transport baggage, cases and cargo around an airport
- load and unload passenger baggage and freight (animals, perishables) on and off planes and helicopters
- use a motorised luggage cart, scissor-lift truck or forklift truck to carry baggage on the airport road system
- operate and place mobile stairs to enable passengers to board or leave an aircraft
- unload and load any baggage and freight that needs to make a connecting flight
- read luggage labels and follow lists to make sure baggage goes to the right place
- check for any priority baggage and assign all baggage to the correct baggage carousel.

With experience and sometimes further training, you may be able to work as a supervisor, work on runways, or arrange transport for crew.

Airline baggage and freight handlers have to work shifts which may include weekends, public holidays and nights. Earmuffs are worn due to noise from the aircraft engines. The work involves bending, lifting and carrying.

#### Personal Requirements

- display alertness, attention to detail and common sense
- enjoy practical work and working with people
- physically fit
- good problem-solving skills
- good interpersonal and communication skills
- good visualisation skills with the ability to understand diagrams and maps
- sound literacy skills to understand loading instructions
- sound numeracy skills for interpreting weight specifications.

#### Education and Training

You can work as an airline baggage and freight handler without formal qualifications, but employers generally require Year 10. You will probably get some informal training on the job.

You can also become an airline baggage and freight handler through a traineeship in Aviation (Ground Operations and Service). Entry requirements may vary, but employers generally require Year 10. For

more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

The minimum age for entry is normally 18 years, and a drivers licence is required for most jobs. You will need to take a hearing test and a medical examination before commencing work. Also, all persons working in the airline industry must satisfy security clearance requirements.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Aviation Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Airline baggage and freight handlers work for airline companies, and are based at airports.

Employment opportunities depend on the level of air travel. There is strong competition for the limited entry positions available, but temporary positions are often available during busy seasons.

#### For Further Information

- Virgin Blue Airlines Pty Ltd ☎ (07) 3295 3000  
☎ [www.virginblue.com.au/AboutUs/Careers/index.htm](http://www.virginblue.com.au/AboutUs/Careers/index.htm)
- Qantas Airways Ltd ☎ <http://careers.qantas.com.au>

#### Related Jobs

Airline Passenger Officer (p 64); Forklift Operator (p 195); Porter - Hotel/Motel (p 328); Storeperson (p 386).

## Airline Passenger Officer

Also known as Airline Customer Service Agent and Airline Customer Service Officer.

Airline passenger officers assist airline passengers between flights with boarding and flight procedures, locating luggage, giving directions and assisting unaccompanied children in transit.

Airline passenger officers may perform the following tasks:

- issue and check tickets and travel documents, check in passengers for their flight and allocate seats
- check baggage for size and weight
- direct passengers to immigration and/or departure gates
- attend to passengers who are flying standby
- provide information on flight arrival and departure times and give messages to arriving and departing passengers
- direct passengers to luggage areas and report lost luggage
- help passengers requiring special assistance, such as VIPs, disabled passengers, parents with infants and younger passengers travelling alone.

Airline passenger officers have to work shifts which may include weekends, public holidays and nights. Uniforms are provided.

#### Personal Requirements

- excellent communication and interpersonal skills
- alertness and common sense
- enjoy working with people
- neat personal appearance
- pleasant personality
- able to work under pressure in peak periods.

#### Education and Training

You can work as an airline passenger officer without formal qualifications. Employers generally require you to gain your VCE with



good results in English and mathematics, and/or relevant clerical and customer service experience.

The selection process involves aptitude testing and an assessment of educational qualifications and previous workplace experience.

Following selection and appointment, airline passenger officers undergo initial in-house training, which covers service standards and protocols, computer reservations, check-in systems and security training.

You can also become an airline passenger officer through a traineeship in Aviation (Ground Operations and Service). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Experience in a service industry, such as hospitality or retail, may be highly regarded. All persons working in the airline industry must satisfy security clearance requirements.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Aviation Industry or Tourism, Hospitality and Events Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most airline passenger officers are employed by Qantas, Jetstar and Virgin Blue. Many are employed on a permanent part-time basis. Competition for positions is strong.

#### For Further Information

- Qantas Airways Ltd ☎ <http://careers.qantas.com.au>
- Jetstar Airways Pty Ltd ☎ 13 15 38 ☎ [www.jetstar.com](http://www.jetstar.com)
- Virgin Blue Airlines Pty Ltd ☎ (07) 3295 3000  
☎ [www.virginblue.com.au/AboutUs/Careers/index.htm](http://www.virginblue.com.au/AboutUs/Careers/index.htm)

#### Related Jobs

Airline Baggage and Freight Handler (p 64); Flight Attendant (p 186); Transport Services Officer (p 418).

## Anaesthetic Technician

Also known as Anaesthesia Paramedical Officer.

Anaesthetic technicians prepare and maintain anaesthetic equipment for operating theatres and clinics, and assist anaesthetists during anaesthetic procedures.

Anaesthetic technicians may perform the following tasks:

- set up, check and maintain anaesthetic workstations, life support machines and associated equipment
- order and prepare medical supplies for anaesthesia
- talk to patients about medical procedures and check whether they have any medical conditions that could cause problems under anaesthesia
- assist the anaesthetist to insert breathing tubes and intravascular lines in patients
- assist the anaesthetist to administer anaesthesia to patients
- watch patients and monitor their vital signs before, during and after procedures
- maintain documentation before, during and after surgery
- assist the anaesthetist in emergencies.

#### Personal Requirements

- good communication and people skills
- attention to detail
- able to work under pressure
- good technical, measuring and computer skills
- organised and methodical
- good general health and fitness.

#### Education and Training

To become a qualified anaesthetic technician you usually have to complete a Diploma of Paramedical Science (Anaesthesia). To get into the course below you must be employed in the anaesthetic area of a hospital or medical clinic, working under an appropriately qualified supervisor.

#### Diploma Courses

*Integrated Care Management - Distance Education:*

Diploma of Paramedical Science (Anaesthesia)

#### Additional Information

Voluntary registration and membership with the Australasian Society of Anaesthesia Paramedical Officers (ASAPO) may be available upon graduation. Registration with ASAPO is not compulsory. However it is strongly recommended, as many employers require anaesthetic technicians to be registered as a condition of employment. See the ASAPO's website for further information.

#### Employment Opportunities

Anaesthetic technicians are employed primarily in large public and private hospitals. Opportunities also exist in smaller hospitals, medical clinics and remote area medical assistance.

#### For Further Information

- Australasian Society of Anaesthesia Paramedical Officers (National Office) ☎ (03) 9607 8531  
✉ [secretary1@asapo.org.au](mailto:secretary1@asapo.org.au) ☎ [www.asapo.org.au](http://www.asapo.org.au)
- Community Services and Health Industry Skills Council Ltd  
☎ [www.careersthatmatter.com.au](http://www.careersthatmatter.com.au)

#### Related Jobs

Midwife (p 274); Nurse - Enrolled (p 295); Nurse - Registered (p 296); Paramedic (p 308).

## Analyst (Information Technology)

Also known as Computer Systems Officer and Systems Analyst.

Analysts define software requirements and specifications and guide program design and development.

The analyst's role sits between the initial business analysis stage and the detailed system design, building and programming stages of the systems development process.

Analysts may perform the following tasks:

- research how IT systems are used and look at ways to improve use and efficiency
- review and develop computer systems, computer languages, data communication processes and user interface devices
- test new IT system designs and fix design problems found
- test new system components
- write reports describing findings, sometimes for publication.

#### Specialisations

**Applications Systems Analyst** - builds IT systems once the requirements have been defined by a business (systems) analyst and uses data modelling to generate different possible solutions as a means of finding the best result for the client. They analyse system



components and monitor data flow to improve efficiency. They draw up detailed design documents for systems, using charts and diagrams that indicate the various steps involved for designers and programmers, and describe the system in ways that the client can understand. They prepare other detailed documentation, including hardware and tender specifications, process flow documentation, rules and instructions for designers and programmers and help with client-site installation activities.

**Computer Tester** - may have several different roles, including initial testing of a newly built system. This could be undertaken together with experts in the subject area and other IT professionals such as programmers. Computer testers may also be involved with clients at the application testing stage.

**Data Modeller** - undertakes data modelling, which is the analysis and design of the information in the system, as part of the development of options for the client.

**Network Analyst** - is involved in the analysis of data flow and the technical requirements and equipment that best suits an organisation's network and investigates the physical space requirements for network equipment. They plan a network's size, capacity and configuration and talk with network system management to ensure that client needs are met. They may also work with network designers and programmers to build and implement network solutions.

**Operations Systems Analyst** - analyses the components of operational systems to optimise performance in such things as response time and down time.

#### Personal Requirements

- able to think logically and analytically in a problem-solving environment
- imaginative and good at creative reasoning
- able to work independently or as part of a team
- good oral and written communication skills
- able to accept responsibility
- willing to continuously update personal IT skills and knowledge.

#### Education and Training

To become an analyst you usually have to study information technology or computer science at university. To get into these courses, you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Degree courses ranging from 3 to 5 years full time or equivalent are widely available at universities in Victoria. Contact your chosen institution for full details.

#### Additional Information

Memberships with the Australian Computer Society are available to those who hold, or are working towards, suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

#### Employment Opportunities

Analysts work in a range of occupational environments. They may work in IT-specific industries, as well as in other industries requiring IT expertise. They may work on a freelance basis or, with experience and sufficient start-up money, there are opportunities for self-employment.

Analyst staff usually start as programmers, although an IT qualification can also be a successful entry point.

#### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)

#### Related Jobs

Business Systems Analyst (p 98); Computer Engineer (p 124); Computer Systems Auditor (p 125); Games Developer (p 198); Information Technology Educator (p 228); Management Consultant (p 253); Mathematician (p 261); Programmer (Information Technology) (p 335); Sales Representative (Information Technology) (p 360); Systems Designer (Information Technology) (p 390).

## Animal Attendant 🌟

Animal attendants provide food, water and care for animals.

Animal attendants may perform the following tasks:

- prepare food (including special diets) and deliver food and water to animals
- clean and prepare comfortable sleeping quarters for animals
- clear away animal waste, clean, disinfect and look after animal enclosures and cages, and check locks
- bathe and groom animals, and treat them with insecticide to control insect pests
- treat minor injuries and report serious health problems to veterinarians
- transfer animals between enclosures
- rescue injured and neglected animals
- assist with humane killing of animals and handling of animals that have died
- maintain animal records
- talk with the public and other staff.

Working conditions vary depending on place of work. Some attendants have to work on weekends and public holidays. Many work outdoors. Considerable contact with the public is involved when accepting donations and lost or unwanted animals, and when selling animals.

#### Specialisations

**Pet Groomer** - washes, dries, brushes, combs, cuts and styles pets' coats, and cares for their nails, ears, eyes and skin. They may specialise in creative special dye work and imaginative themes to enter competitions, or prepare purebred dogs and cats for breed shows.

**Kennel Hand** - receives dogs and cats from their owners, tags them for identification, then exercises, feeds and grooms them.

**Pet Shop Attendant** - sells pet food and accessories as well as animals to customers.

#### Personal Requirements

- enjoy practical and manual activities
- free from allergies aggravated by animal hair, fur, feathers and dust
- able to undertake manual and sometimes heavy work
- able to handle animals with confidence and patience
- interested in animals and their welfare
- observant and methodical.

#### Education and Training

You can work as an animal attendant without formal qualifications, but employers usually like at least Year 10. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses below usually requires Year 10. You may also be required to attend an interview. As subjects can vary



between institutions, you should contact your chosen institution for full details.

You can also become an animal attendant through a traineeship in Animal Studies, Companion Animal Services or Captive Animals. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**TAFE Victoria - various locations:**

Certificate II in Animal Studies

Certificate III in Companion Animal Services

**Box Hill TAFE - Elgar Campus:**

Certificate III in Animal Technology

Certificate III in Captive Animals

**Northern Melbourne Institute of TAFE - Fairfield Campus:**

Certificate III in Animal Technology

**Victoria University - Werribee Campus:**

Certificate III in Captive Animals

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Animal Care and Management Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Animal attendants can work in a wide range of places including animal shelters, catteries, dog parlours or salons, kennels, pet shops, larger veterinary hospitals and clinics, zoos, circuses, theme parks and wildlife parks.

Competition for jobs is strong as there are usually many more people seeking to enter this occupation than there are positions available. Dog clipping and grooming is a growth area which may provide self-employment opportunities.

#### For Further Information

- Pet Industry Association of Australia ☎ [www.piaa.net.au](http://www.piaa.net.au)
- RSPCA Australia ☎ [www.rspca.org.au](http://www.rspca.org.au)
- Human Resources, Zoos Victoria ☎ (03) 9285 9366
- ✉ [employment@zoo.org.au](mailto:employment@zoo.org.au) ☎ [www.zoo.org.au/hr](http://www.zoo.org.au/hr)

#### Related Jobs

Animal Technician (p 67); Dog Trainer (p 151); Horse Trainer (p 215); Laboratory Worker (p 240); Stablehand (p 382); Veterinarian (p 428); Veterinary Nurse (p 429); Zoologist (p 443).

## Animal Technician 🌿

Animal technicians help veterinary, medical, pharmaceutical, agricultural and general scientists and students to care for and check on animals used for research, breeding and scientific purposes.

Animal technicians may perform the following tasks:

- check and record, on a daily basis, the health status and behaviour of animals in their care
- prepare food and water and provide care for laboratory, field or zoo animals
- look after zoo exhibits, holding or breeding areas and equipment
- assist in return-to-the-wild programs
- carry out experiments using animals, recording the results under supervision and according to relevant codes of practice, and the organisation's animal experimentation ethics committee rules

- take samples of animal body fluids, faeces or tissue for analysis or veterinary inspection
- inspect and test animals for worm infestation and disease
- observe animals' reactions to tests
- make routine calculations and prepare graphs
- clean and disinfect cages and facilities, and sterilise equipment
- establish and maintain breeding programs
- help in fertility testing for sheep, cattle or poultry research
- assist in the selection and grading of animals for breeding programs
- help with injections, surgery, dressings and care of animals after operations
- assist with the production of animal experimentation protocols
- humanely put animals down and/or handle animals that have died
- participate in embryo transfer procedures
- carry out post-mortem examinations on dead animals.

Animal technicians are usually required to work in shifts and on weekends. Some work outdoors in all kinds of weather conditions. Much of their time is spent doing routine tasks such as cleaning exhibits and feeding animals.

#### Specialisations

**Field Assistant** - cares for large animals, such as sheep and cattle used for research purposes, which are kept in outdoor pens and paddocks.

**Zookeeper** - helps care for animals in zoos and wildlife parks, providing enrichment activities for the animals, assistance to veterinary staff, and information to the public on animals and conservation.

#### Personal Requirements

- enjoy practical and manual activities
- interested in animals, their welfare and conservation
- able to handle animals with confidence and patience
- able to make accurate observations
- free from allergies aggravated by animal hair, feathers, fur and dust
- able to undertake manual and sometimes heavy work.

#### Education and Training

To become an animal technician you usually have to complete a certificate in animal technology or captive animals, or a diploma in animal technology. Entry to the certificate courses below usually requires Year 10 and access to a relevant workplace. Entry to the diploma courses usually requires Year 12 or a Certificate IV in Animal Technology plus access to a relevant workplace. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become an animal technician through a traineeship in Captive Animals or Animal Technology. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**Box Hill Institute of TAFE - Elgar Campus:**

Certificate III in Animal Technology

Certificate III in Captive Animals

**Northern Melbourne Institute of TAFE - Fairfield Campus:**

Certificate III in Animal Technology

**Victoria University (TAFE Division) - Werribee Campus:**

Certificate III in Captive Animals



#### Diploma Courses

**Box Hill Institute of TAFE - Elgar Campus:**

Diploma of Animal Technology

**Northern Melbourne Institute of TAFE - Fairfield Campus:**

Diploma of Animal Technology

**Victoria University (TAFE Division) - Werribee and Footscray Nicholson Campuses:**

Diploma of Animal Technology

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Animal Care and Management Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

There is strong competition for positions in this field. Sources of employment include research institutions such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), government veterinary laboratories, universities, major hospitals, animal breeding establishments and zoos.

#### For Further Information

- Australia and New Zealand Laboratory Animals Association (ANZLAA) ☎ (03) 9345 5125 ✉ magdy.sourial@rch.org.au  
🌐 www.anzlaa.org
- CSIRO 🌐 www.csiro.au
- Human Resources, Zoos Victoria ☎ (03) 9285 9366  
✉ employment@zoo.org.au 🌐 www.zoo.org.au/hr

#### Related Jobs

Agricultural Technical Officer (p 58); Animal Attendant (p 66); Horse Trainer (p 215); Laboratory Worker (p 240); Shearer (p 367); Stablehand (p 382); Veterinarian (p 428); Veterinary Nurse (p 429); Zoologist (p 443).

## Anthropologist

Anthropologists study the origin, development and functioning of human societies and cultures, as they exist now or have existed throughout history.

Anthropologists are concerned with the complexities of social and cultural life, including religion, rituals, family and kinship systems, languages, art, music, symbolism, and economic and political systems.

Anthropologists may perform the following tasks:

- work in different communities to gather and analyse information on social and cultural behaviour, artefacts, language and biology of groups and societies which they are studying
- collect, identify, date, protect and preserve indigenous artefacts, material possessions and other objects of anthropological interest.

Anthropologists' main research method is fieldwork, living with the people being studied and learning through participation in activities, often under difficult conditions.

There is considerable overlap in the areas of specialisation in anthropology. For this reason, specialist anthropologists sometimes conduct joint research.

#### Specialisations

**Applied Anthropologist** - may work in areas such as social policy and planning, social impact assessments, conservation, advocacy, community development, women and development, cultural resource management, land claims and social justice.

**Biological/Physical Anthropologist** - concerned with the biological evolution and variations of the human species, past and present, and with the interactions between biology, ecology and culture over the life spans of individual humans. Some biological anthropologists study the bones of people who lived in the distant past, working closely with archaeologists.

**Linguistic Anthropologist** - looks mainly at the languages of non-Western societies and studies the evolution, structure, history and function of languages and how they influence or are influenced by other aspects of social life.

**Social/Cultural Anthropologist** - conducts ethnographic research on small communities, cities and nations, and makes comparative studies of different cultures.

#### Personal Requirements

- capacity for detailed observation and accurate practical work
- able to work independently
- aptitude for research
- good oral and written communication skills
- sensitive to other people and cultures.

#### Education and Training

To become an anthropologist you usually have to study anthropology at university, preferably at honours level, followed by a postgraduate qualification in anthropology. To get into the courses below you usually need to gain your VCE with English. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

**Deakin University - Geelong Campus and Distance Education:**

Bachelor of Arts, majoring in anthropology, 3 years full time or equivalent

Bachelor of Arts (International Studies), majoring in anthropology, 3 years full time or equivalent

**La Trobe University - Bundoora Campus:**

Bachelor of Arts, majoring in anthropology, 3 years full time or equivalent

Bachelor of International Development, majoring in anthropology, 3 years full time or equivalent

Bachelor of International Relations, majoring in anthropology, 3 years full time

Bachelor of Social Sciences, majoring in anthropology, 3 years full time or equivalent

**Monash University - Clayton Campus:**

Bachelor of Arts, majoring in anthropology, 3 years full time or equivalent

**University of Melbourne - Parkville Campus:**

Bachelor of Arts, majoring in anthropology, 3 years full time or equivalent

#### Additional Information

In collecting information about a society, anthropologists may have to learn another language.

Ordinary membership of the Australian Anthropological Society is open to people who have completed an honours degree in anthropology.

#### Employment Opportunities

The major employers of anthropologists are universities, museums and government departments concerned with Aboriginal welfare and Native Title, immigration and ethnic affairs, multiculturalism and social



services. They are also employed by development and conservation organisations, including United Nations agencies and other non-government organisations. Some graduates become secondary teachers and a smaller number of graduates are employed by universities as part-time tutors while they seek to gain postgraduate qualifications. A growing number of positions are available at Aboriginal Land Council offices, or in research relating to Native Title claims and heritage clearance. Positions are advertised in government gazettes, newspapers, professional journals and on various websites.

In recent times, there has been an increase in anthropological consultancy work funded by both government and private industry and a number of anthropological and/or archaeological companies have been formed.

#### For Further Information

- Australian Anthropological Society Inc ☎ (02) 6125 3208  
✉ aas@anu.edu.au 🌐 www.aas.asn.au

#### Related Jobs

Archaeologist (p 69); Cultural Heritage Officer (p 138); Historian (p 212); Museum Curator (p 283); Psychologist (p 337); Sociologist (p 374).

## Aquaculture Technician ★

Also known as Fisheries Technician.

Aquaculture technicians work in freshwater and marine farming, hatchery management and research on farmed species.

They can be involved in equipment design, site development, research, and the harvesting, processing and shipment of products.

Aquaculture technicians may perform the following tasks:

- breed and raise marine organisms such as fish, eels, crustaceans, shellfish, pearl-producing shellfish, algae, crocodiles and turtles in artificial conditions
- identify common diseases in fish and shellfish, and take the necessary steps to prevent problems which may occur in intensive farming
- assist with experiments relating to nutrition or methods to control predators, parasites and other disease-causing organisms
- monitor the environment using oxygen meters, salinity meters, pH (acidity) meters and water chemistry analysis kits
- maintain live feed and algae cultures
- keep records of breeding, production and treatment programs
- develop and implement systems of profitable farm management.

Aquaculture technicians work outdoors in all kinds of weather. They may also work in a hatchery or laboratory. The work can be located in isolated areas. Heavy lifting can be involved. Shift work is common, including on weekends and public holidays.

#### Personal Requirements

- a practical approach to work
- enjoy science
- good observational skills
- enjoy outdoor work
- physically fit
- willing to work with computers.

#### Education and Training

To become an aquaculture technician you usually have to complete a certificate or diploma specialising in aquaculture. Entry to the certificate courses below requires Year 10. Entry to the diploma courses requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become an aquaculture technician through a traineeship in Seafood Industry (Aquaculture). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*East Gippsland Institute of TAFE - SEAMEC Maritime Centre:*  
Certificate III in Seafood Industry (Aquaculture)

*Northern Melbourne Institute of TAFE - Epping Campus:*  
Certificate III in Seafood Industry (Aquaculture)

#### Diploma Courses

*East Gippsland Institute of TAFE - SEAMEC Maritime Centre and Foretech Living Resource Centre:*

Diploma in Seafood Industry (Aquaculture)

#### Employment Opportunities

Aquaculture technicians can be employed in a range of positions, including farm worker, farm nutritionist and hatchery or pond technologist. They may work as owner-managers of aquaculture farms or find employment with state and territory fishery authorities, tertiary institutions, industrial organisations, private hatcheries and farms, or research organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

#### For Further Information

- Seafood Services Australia ☎ (07) 3633 6777 or 1300 130 321 (Toll Free) ✉ ssa@seafoodservices.com.au  
🌐 www.seafood.net.au
- Australian Institute of Marine Science (AIMS) ☎ (07) 4753 4444  
🌐 www.aims.gov.au
- Department of Primary Industries - Fisheries Victoria (Aquaculture Unit) ☎ 136 186 ✉ customer.service@dpi.vic.gov.au  
🌐 http://new.dpi.vic.gov.au

#### Related Jobs

Biotechnologist (p 89); Deck Hand (p 141); Farmer/Farm Manager (p 172); Fish Farm Hand (p 183); Fisheries Officer (p 184); Laboratory Worker (p 240).

## Archaeologist

Archaeologists study past human societies through recovery, recording, analysis and interpretation of material remains and other evidence that can help shed light on the past. Archaeologists draw upon a wide range of different types of evidence including cultural artefacts, food remains, skeletal remains, environmental evidence and landscapes.

Archaeologists may perform the following tasks:

- liaise with Indigenous and non-Indigenous community groups
- survey, map and record archaeological sites
- organise and carry out excavations, field surveys and surface collections
- clean, conserve, restore, reconstruct and display material found at archaeological sites
- photograph and/or draw features and artefacts on-site and during post-excavation analysis
- analyse the finds through a variety of means including physical and chemical techniques and documentary research
- document the information obtained from the findings in a concise report
- advise individuals and groups on heritage matters, including conservation options and legal provisions
- prepare material for publication.



Archaeologists may specialise in particular geographic regions or areas of study, such as the identification of animal skeletal remains or plant remains.

Archaeologists may work with a variety of people on excavations, including Indigenous groups, academics from related areas, technical staff, people who live in the vicinity of the archaeological sites, labourers and other workers under their direction.

Archaeologists are making increasing use of new technologies including geophysical survey devices, Geographic Information Systems (GIS), web-based communication platforms and Global Positioning System (GPS) devices.

Archaeologists work both indoors and outdoors, in varying locations across Australia and internationally.

#### Personal Requirements

- patience, perseverance and determination
- an eye for detail
- enjoy science and history
- aptitude for research
- strong writing skills
- aptitude for working with computers
- able to work as part of a team
- prepared to endure rough and isolated living conditions for extended periods while involved in fieldwork
- able to remain objective.

#### Education and Training

To become an archaeologist you usually have to complete a degree at university with a major in archaeology or cultural heritage, followed by a postgraduate qualification in archaeology or cultural heritage studies. To get into the courses below you usually need to gain your VCE with English. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *La Trobe University - Bundoora Campus:*

Bachelor of Archaeology, 3 years full time or equivalent  
Bachelor of Arts, majoring in archaeology, 3 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Arts, majoring in archaeology and ancient history,  
3 years full time or equivalent

#### Employment Opportunities

Traditionally, archaeologists have mainly been employed as academics in universities and museums. At present, most archaeologists are employed in the cultural heritage management field, and use their expertise to minimise the impacts of development projects on sites of cultural heritage significance. A variety of government departments, Indigenous groups and representative bodies employ archaeologists in this capacity, while some are employed as researchers in universities.

Although competition for positions is strong, in recent years there has been an increasing demand for qualified graduates. Most of this demand comes from cultural heritage firms who work in the development industry. Undertaking voluntary work during your degree may increase the possibility of gaining a job in this field. Many universities offer field schools, volunteer or work placement opportunities to help students gain such experience.

#### For Further Information

- Australian Archaeological Association Inc (National)  
✉ [secretary@australianarchaeology.com](mailto:secretary@australianarchaeology.com)  
🌐 [www.australianarchaeologicalassociation.com.au](http://www.australianarchaeologicalassociation.com.au)
- Museums Australia (VIC) ☎ (03) 8341 7344  
✉ [mavic@mavic.asn.au](mailto:mavic@mavic.asn.au) 🌐 [www.mavic.asn.au](http://www.mavic.asn.au)

#### Related Jobs

Anthropologist (p 68); Conservator (p 127); Cultural Heritage Officer (p 138); Geographer (p 200); Historian (p 212); Museum Curator (p 283).

## Architect

Architects use creativity and a practical understanding of structures and materials to develop concepts, plans, specifications and detailed drawings for buildings and other structures. They negotiate with builders and planning authorities, administer building contracts and inspect the work carried out.

Architects may perform the following tasks:

- discuss requirements of clients or builders (to design a new structure or modify an existing one) and prepare a brief
- prepare sketch drawings, production drawings and detailed drawings by hand or using Computer-Aided Design (CAD) equipment
- combine structural, mechanical and artistic elements into the building design, such as decks and atriums, lifts and air-conditioning systems, and decorative finishes
- discuss designs and cost estimates with clients and others involved in the project, including engineers, quantity surveyors, landscape architects and town planners
- obtain necessary approvals from authorities
- prepare specifications and contract documents specifying building materials, construction equipment and, in some cases, the interior furnishings, for builders, tradespeople and legal advisers
- observe, inspect and monitor building work, to make sure that it is progressing according to the contract and specifications
- evaluate projects once they are completed and occupied.

Architects may also be involved in project feasibility studies, strategic asset investigations, heritage studies, urban planning, interior design or landscape design.

Architects often specialise in particular types of work, for example, domestic, low-rise commercial, high-rise commercial, industrial, conservation and heritage buildings. Architects need to keep up with changing trends in the construction industry and the community. They have considerable contact with the public.

#### Personal Requirements

- enjoy design
- creative flair
- able to analyse problems logically
- good communication skills.

#### Education and Training

To become an architect you usually have to study an accredited architecture degree at university. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.



## Degree Courses

### Deakin University - Geelong Waterfront Campus:

Bachelor of Design (Architecture), 3 years full time or equivalent, followed by Master of Architecture, 2 years full time or equivalent

### Monash University - Caulfield Campus:

Bachelor of Architectural Design, 3 years full time, followed by Master of Architecture, 2 years full time

### Oceania Polytechnic Institute of Education - Melbourne Campus:

Bachelor of Architecture, 6 years full time or equivalent

### RMIT University - City Campus:

Bachelor of Architectural Design, 3 years full time, followed by Master of Architecture, 2 years full time or equivalent

### University of Melbourne - Parkville Campus:

Bachelor of Environments, majoring in architecture, 3 years full time or equivalent, followed by Master of Architecture, 2 years full time or equivalent

## Additional Information

Architects must also be registered with the Architects Registration Board in the state or territory in which they wish to practise. To apply for registration you must finish an accredited architecture degree, have two years monitored experience with an architectural practice and complete an examination in architectural practice set by the Architects Accreditation Council of Australia (AACA) and run by the Architects Registration Board of Victoria.

## Employment Opportunities

Most architects work in architectural firms or for businesses that have large construction programs. Many start their own practice after a few years of experience.

Architectural training includes the ability to combine arts, science and technology. Therefore, architects increasingly find work in areas outside of architecture such as urban planning and design, property development, construction management, interior design, industrial design, teaching, research and journalism.

## For Further Information

- Architects Accreditation Council of Australia ☎ (02) 6230 0506  
✉ mail@aaca.org.au 🌐 www.aaca.org.au
- Australian Institute of Architects (National Office)  
☎ (02) 6121 2000 ✉ national@raia.com.au  
🌐 www.architecture.com.au
- Architects Registration Board of Victoria ☎ (03) 9417 4444  
✉ registrar@arb.vic.gov.au 🌐 www.arbv.vic.gov.au

## Related Jobs

Architectural Technician (p 71); Building Contractor (p 95); Building Surveyor (p 96); Civil Engineer (p 116); Cultural Heritage Officer (p 138); Industrial Designer (p 223); Interior Designer (p 234); Landscape Architect (p 242); Quantity Surveyor (p 343); Urban and Regional Planner (p 423).

## Architecture at Melbourne.

abp.unimelb.edu.au/



## Architectural Technician

Also known as Architectural Drafter, Building Drafter, Draftsperson and Drafting Officer.

Architectural technicians complete architects' and other designers' concepts by preparing drawings, estimates and plans and liaising with builders and contractors.

Architectural technicians may perform the following tasks:

- prepare architectural drawings for development and construction applications, showing internal and external layouts of buildings
- analyse architects' and building designers' concepts, and prepare preliminary sketches and detailed drawings
- use computers or manually produce designs, detailed drawings and documentation
- prepare working drawings showing site layouts, floor plans, elevations, sections, materials and finishes, as well as other aspects such as joinery detailing, construction details, lighting layouts, plumbing, drainage, car parking and landscaping
- calculate the quantity and quality of materials needed, material and labour costs and project completion dates
- prepare building specifications for building documentation to suit individual clients and tendering purposes
- represent or assist architects or building designers on building sites to make sure that plans and specifications are followed
- liaise with local government organisations
- examine relevant codes and by-laws in the course of undertaking project documentation.

Architectural technicians spend some time outdoors inspecting sites.

## Specialisation

**Building Designer** - an independent architectural technician who designs and prepares plans for buildings on behalf of a client. They manage the building design process from design brief to completion. This includes liaison with other designers and specialists such as structural and civil engineers, electrical, mechanical and hydraulic consultants, builders, surveyors and landscapers throughout the building process.

## Personal Requirements

- able to visualise ideas in three-dimensional form
- enjoy technical drawing and working with computers
- able to draw neatly and accurately
- good concentration and attention to detail
- some artistic talent in freehand drawing.

## Education and Training

To become an architectural technician you usually have to complete a certificate IV in building design or residential drafting. However, entry to this occupation may be improved if you have a diploma or advanced diploma in this area. Entry to the courses below usually requires Year 12. However, the advanced diploma may also require an interview and portfolio. As subjects can vary between institutions, you should contact your chosen institution for full details.

## Certificate Courses

### Chisholm Institute of TAFE - Frankston Campus:

Certificate IV in Residential Drafting

### Gordon Institute of TAFE - East Geelong Campus:

Certificate IV in Residential Drafting

### Victoria University - Newport Campus:

Certificate IV in Residential Drafting

## Diploma Courses

### Gordon Institute of TAFE - East Geelong Campus:

Diploma of Building Design and Technology



### *TAFE Victoria - various locations:*

Advanced Diploma of Building Design - Architectural

### *Victoria University (TAFE) - Newport Campus:*

Diploma of Building Design and Technology

Advanced Diploma of Building Design and Project Administration  
(entry via Diploma of Building Design and Technology)

### *Additional Information*

Graduates of certificate and diploma courses are eligible for membership of the Building Designers Association of Australia. Students are eligible for student membership. Visit their website for more information.

Building designers (including architectural technicians) who act as sole traders in Victoria must hold a licence issued by the Building Commission. Relevant qualifications and sufficient practical experience must be gained in order to be eligible for licensing. For further information regarding licensing refer to the Building Commission website at [www.buildingcommission.com.au](http://www.buildingcommission.com.au).

### *Employment Opportunities*

Most architectural technicians are employed by architects, building designers and planners in private practice or in various departments of state, territory and federal governments. Firms of consulting engineers, building companies and manufacturers of building materials and components also offer opportunities. Demand for architectural technicians is dependent on the level of activity in the building and construction industry and may vary over short periods. There are opportunities for self-employment as a contractor.

### *For Further Information*

- Building Designers Association of Australia (Head Office)  
☎ (07) 3889 7337 ✉ [admin@bdaa.com.au](mailto:admin@bdaa.com.au)  
🌐 [www.bdaa.com.au](http://www.bdaa.com.au)

### *Related Jobs*

Architect (p 70); Building Contractor (p 95); Building Surveyor (p 96); Cartographic Technician (p 106); Civil and Structural Engineering Associate (p 115); Interior Designer (p 234); Model Maker (p 280); Quantity Surveyor (p 343); Survey Assistant (p 387); Surveying Technician (p 388).

## **Archivist**

Archivists analyse and document records. They also plan and organise systems and procedures for the safekeeping of records and historically valuable documents.

The records may include written records, files, maps, plans, letters, books, certificates, diaries and registers. Records also include other media such as photographs, films, sound recordings, microfilms, and electronic or computer records.

Archivists may perform the following tasks:

- work out how long records need to be kept for accountability and historical purposes by following specified record keeping requirements
- make sure that vital records necessary for the ongoing operations of an organisation are identified and preserved
- survey records held by client agencies and individuals, and arrange for their transfer to archival custody
- collect records in accordance with an acquisitions policy
- design systems (including hardware, software, procedures and manuals) that enable organisations to create and keep records of their business activities

- establish and manage administrative systems to document and control records and archives
- compile guides, inventories and indices to assist reference and research
- provide access to records for research, administrative, legal and other purposes
- assist users by explaining how to retrieve information from the records
- research publications or prepare exhibitions using archival records
- ensure that the right environmental conditions for the storage and conservation of records is maintained according to scientific methods
- advise on records management issues.

### *Personal Requirements*

- aptitude for research and analysis
- good oral and written communication skills
- good organisational skills
- able to undertake highly detailed work
- interested in the preservation and accurate management of records
- aptitude for using computers
- able to work independently
- able to accept responsibility.

### *Education and Training*

To become an archivist you usually have to study information management at university. You can also become an archivist by studying humanities or social sciences at university, followed by a postgraduate qualification in archives and record management. Bachelor degree courses in humanities and social sciences areas are widely available in Victoria. To get into these courses, you usually need to gain your VCE. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the institution for more information as requirements may change.

### *Degree Courses*

#### *Monash University - Caulfield Campus:*

Bachelor of Information Technology and Systems, majoring in information management, 3 years full time or equivalent

### *Additional Information*

In some cases it may be possible to become an archivist through relevant work experience. Government archives in particular may offer alternative entry schemes and in-house training.

The Australian Society of Archivists is the professional organisation for archivists in Australia. Associate membership is open to anyone, including students, who support the aims of the society. Professional membership is available to a graduate who has been employed as an archivist in a recognised institution for two years, or to anyone holding a postgraduate professional qualification recognised by the society, who has been employed as an archivist for one year.

### *Employment Opportunities*

The two major employers of archivists are the federal and state or territory governments. Archivists are also employed by statutory authorities, local government councils, universities and other tertiary institutions, schools, churches, banks, building societies and some



large commercial companies. There are also some opportunities for private consultancy work.

#### For Further Information

- Australian Society of Archivists Inc (National) ☎ 1800 622 251 (FREECALL) ✉ office@archivists.org.au ☎ www.archivists.org.au
- National Archives of Australia (VIC) ☎ (03) 9348 5600 ✉ archives@naa.gov.au ☎ www.naa.gov.au

#### Related Jobs

Conservator (p 127); Health Information Manager (p 210); Historian (p 212); Librarian (p 246); Records and Information Manager (p 347); Research Officer (p 353).

## Army Officer

Army officers command, train and motivate soldiers for both peacetime and wartime tasks.

They work at the middle and executive management level within the Army. Officers specialise in various areas depending on their training and qualifications.

Army officers may perform the following tasks:

- provide leadership, motivation and discipline as required within a team
- make sure the unit is managed efficiently
- communicate and cooperate closely with both military and civilian organisations
- teach members of their units efficient procedures and practice
- take on further professional and military training to expand their experience and responsibility
- manage their personnel and equipment under both administrative and military exercise conditions.

The Australian Army consists of various specialist branches called corps. Some examples are:

The **Australian Army Aviation Corps** (e.g. pilots) are involved in the operation and maintenance of aircraft.

The **Royal Australian Electrical and Mechanical Engineers Corps** (e.g. aeronautical engineers, electrical engineers) organise the maintenance of the Army's technical equipment.

The **Royal Australian Army Medical Corps** (e.g. doctors, pharmacists) provide medical and health services to all members of the Army.

The **Royal Australian Army Nursing Corps** (e.g. nurses) provide care to all wounded and sick members of the Army.

The **Royal Australian Corps of Signals** (e.g. computer scientists) are responsible for the operation and maintenance of communications and signalling systems.

Working conditions vary greatly, from working in an office to spending extended time in rough conditions in the field. Army officers may be posted to a wide range of locations, in Australia and overseas.

#### Personal Requirements

- physically fit
- well organised, with leadership qualities
- good interpersonal and communication skills
- meet aptitude and medical requirements
- willing to serve anywhere in Australia or overseas
- at least 17 years of age
- Australian citizenship or permanent residency.

#### Education and Training

To become an Army officer you usually have to gain your VCE with passes in English and three other tertiary entry units, preferably including mathematics and a science unit.

To join the Army you will need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

If you are successful there are four different education and training pathways for Army officers. You may apply to join the Army as a non-degree direct entry officer cadet, you may complete a degree through the Australian Defence Force Academy (ADFA), you may apply as a sponsored undergraduate or you may apply after completing one of a selected range of specialist degrees.

Entry as a non-degree officer cadet requires the completion of 18 months training at the Royal Military College Duntroon, ACT. This is followed by specialist training with the Army.

Entry to ADFA usually requires you to gain your VCE with an appropriate score in prerequisite subjects relevant to your chosen area of study. All ADFA students are required to complete a 3-year course of academic study at the Academy, followed by a year of military training.

Sponsored undergraduates are full-time university students who are currently studying for a degree relevant to the Army at a recognised tertiary institution. They can apply for sponsored undergraduate entry into the Army during the final two to four years of their degree, having completed at least one year of their degree.

Following completion of their specialised degree, they are appointed as Graduate (Direct Entry) Officers. They then must complete a 5-week Junior Officer Training Course for Officers at the Royal Military College Duntroon, and an 8-week Regimental Officer basic course before becoming officers in their specialised field.

Undergraduates can also apply for the Officer Tertiary Recruitment Scheme. Successful applicants are appointed as Commissioned Officers and sponsored to complete their studies. Following completion of their specialised degree, they are appointed as Officer Cadets and required to undertake a General Service Officer First Appointment Course before continuing with full-time training at the Royal Military College, Duntroon.

People already with specialised degrees may apply for direct entry into the Army as Graduate (Direct Entry) Officers. These applicants are required to complete the 5-week Junior Officer Training Course for Officers at the Royal Military College and the 8-week Regimental Officer basic course before becoming fully operational in their specialised field. Different specialised occupations have different entry requirements. For full details on this option, contact your nearest Defence Force Recruiting Centre.

#### Additional Information

To enter ADFA, you must satisfy entry requirements for a relevant degree at the University of New South Wales or equivalent. Applications usually close in September of the year prior to entry.

Year 11 students who apply to ADFA may be eligible for an ADFA Education Award. The Education Award is presented annually to Year 12 students in recognition of outstanding achievement shown during the ADFA entry recruiting process.

#### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round.

#### For Further Information

- Defence Force Recruiting Centre (National) ☎ 13 19 01 (Toll Free) ☎ www.defencejobs.gov.au



### Related Jobs

Air Force Officer (p 60); Army Soldier (p 74); Army Soldier - Technician (p 74); Electrical Engineer (p 156); Navy Officer (p 291); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327).

## Army Soldier

Also known as Soldier.

Army soldiers work in jobs in administration, management, transport, finance, supply and a variety of trades, and as tank drivers, gunners and riflemen.

Soldiers may perform the following tasks:

- operate and maintain a wide variety of military equipment
- do training, ranging from classroom lectures to operating in a field environment, often in difficult conditions
- do training across a number of areas that could include navigation, field craft, administration, vehicle maintenance, computer skills and leadership.

The Australian Army consists of various specialist branches called corps. Some examples are:

The **Australian Army Aviation Corps** (e.g. aircrew loadmasters, ground crew) are involved in the operation and maintenance of aircraft and their equipment.

The **Australian Army Band Corps** perform and march at national and state ceremonial occasions such as visits by foreign leaders, and entertain troops.

The **Australian Intelligence Corps** (e.g. intelligence operations analysts, intelligence operators) assist in the planning and execution of army operations by identifying, interpreting and analysing data.

The **Royal Australian Artillery Corps** (e.g. artillery and survey operators, command post operators) are involved in locating enemy targets, providing low-level air defence and producing the firepower needed in combat situations.

The **Royal Australian Corps of Transport** (e.g. marine specialists, movement assistants) are involved in the transport and distribution of soldiers and goods via road, sea or air.

Army soldiers can be posted to capital or regional cities throughout Australia and are expected to serve in a variety of units and formations throughout their careers.

### Personal Requirements

- physically fit
- enjoy technical work
- good interpersonal and communication skills
- high degree of self-discipline
- willing to serve anywhere in Australia or overseas
- meet aptitude and medical requirements
- at least 17 years of age
- Australian citizenship or permanent residency.

### Education and Training

To become an Army soldier you usually have to complete Year 10 or equivalent with passes in English and mathematics.

You will also need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

Following selection and employment in the Army as a general entrant, you will need to undertake specific Army training. This involves an 80-day recruit course with the 1st Recruit Training Battalion at Kapooka,

near Wagga Wagga, NSW. Completion of this course is followed by specialised training for particular jobs.

As different specialisations have different entry requirements, you should contact your nearest Defence Force Recruiting Centre for specific requirements.

### Additional Information

The Australian Defence Force Gap Year program offers students or recent school leavers the opportunity to gain relevant skills and job training over a 12-month period. See the Australian Defence Force website for more details.

### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round.

### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

### Related Jobs

Air Force General Entrant (p 59); Army Officer (p 73); Army Soldier - Technician (p 74); Navy Sailor (p 292); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327).

## Army Soldier - Technician

Army soldier - technicians undertake a wide range of peacetime and wartime tasks for the Australian Army including the construction, maintenance and repair of Army equipment.

An Army soldier - technician may specialise as an/a:

**Aircraft Life Support Fitter** who makes sure that aircraft safety equipment, such as parachutes, life rafts, anti-gravity suits, flying helmets and breathing apparatus, is fully operational.

**Aircraft Structural Fitter** who is responsible for inspecting, testing, repairing, rebuilding, refurbishing and modifying Army aircraft structures and components.

**Aircraft Technician** who is responsible for inspecting, testing, repairing, rebuilding, refurbishing, modifying and recovering Army aircraft airframes, engines and equipment.

**Avionics Technician** who inspects, repairs and maintains aircraft communications, navigation, radar, electrical, electronics and instrument systems, and ground equipment.

**Electrical Technician** who assembles and repairs electrical machines and apparatus. They diagnose faults in and repair automotive electrical systems, refrigeration equipment, field generating equipment and domestic electrical equipment.

**Electronics Technician** who installs, maintains, repairs and manages electronic and communications equipment. The job also involves operating high power transmitters, radio relays and multi-channel carriers.

**Fitter Armament** who inspects, repairs, modifies and reconditions military armaments, watercraft and small engines, and performs general engineering tasks.

**Vehicle Mechanic** who repairs and maintains all types of motor vehicles, including cars, trucks, prime-movers, trailers, plant equipment and armoured fighting vehicles.

Army technicians usually work in a team. They can be sent to Army units and workshops throughout Australia and overseas.



### Personal Requirements

- physically fit
- enjoy technical work
- good interpersonal and communication skills
- well organised
- meet aptitude and medical requirements
- at least 17 years of age
- Australian citizenship or permanent residency.

### Education and Training

To become an Army technician you usually have to complete Year 10 or equivalent with passes in English, mathematics, science with a physics content and one other subject.

You will also need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

Following selection and employment with the Army, you will need to undertake specific Army training as an Army enlistee. This involves an 80-day recruit course with the 1st Recruit Training Battalion at Kapooka, near Wagga Wagga, NSW. This is followed by specialised training for technician positions.

This training varies according to speciality, lasting up to two years, followed by a maximum of two years of on-the-job training in Army units or with civilian organisations. Training is followed by a period of service in the Army. Training is provided at either the RAAF School of Technical Training at Wagga Wagga, NSW or the Army Logistic Training Centre at Bonegilla, Victoria.

### Employment Opportunities

Recruitment to the Australian Defence Force is conducted on an Australia-wide basis all year round.

### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

### Related Jobs

Air Force Technician/Tradesperson (p 61); Army Officer (p 73); Army Soldier (p 74); Carpenter (p 105); Engineering Tradesperson - Mechanical (p 165); Joiner (p 238); Light Vehicle Motor Mechanic (p 250); Navy Technical Sailor (p 293); Plumber (p 324).

## Art Therapist

Art therapists work with a client or a group of clients to help them address emotional and psychological issues through creative activities such as drawing, painting, sculpting and collage.

Art therapists may perform the following tasks:

- conduct therapeutic interviews and provide psychotherapy and counselling
- provide assessments to identify the source of problems and determine appropriate treatment
- provide follow-up services to groups and individuals for support and evaluation purposes
- build relationships with clients to support them in understanding their emotions and behaviours
- assess individuals and groups to identify abilities and needs
- develop activities which may use painting, sculpting, printing and/or drawing to address a patient's needs and concerns in a safe, nurturing environment
- maintain appropriate records of patient progress
- provide consultation and information on patient progress
- assess, monitor and evaluate the effectiveness of artistic and therapeutic interactions.

Art therapists work in any area where people require assistance with achieving a better quality of mental health. They may work in psychiatric wards, prisons, rehabilitation centres, and drug and alcohol units.

### Personal Requirements

- interested in people and human behaviour
- able to solve problems
- an inquisitive mind
- able to maintain confidentiality
- patience and perceptiveness
- good oral and written communication skills.

### Education and Training

To become an art therapist you usually have to study art, counselling, psychology, nursing, teaching or social science at university. This is followed by a masters degree in art therapy, which is currently offered by the University of Western Sydney in NSW, La Trobe University in Victoria and the University of Queensland (which offers a master of mental health specialising in art therapy), and 750 hours of supervised field experience on a clinical placement. The postgraduate degree courses must be accredited by the Australian and New Zealand Art Therapy Association (see their website for an up-to-date list).

To get into these courses you usually need to gain your VCE. Entry to postgraduate courses usually requires a relevant bachelor degree.

Degree courses with majors in art, counselling, psychology, nursing, teaching or social science are widely available at most universities in Victoria. Check institution handbooks for full details. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

### Additional Information

In order to practise, art therapists must be registered with the Australian and New Zealand Art Therapy Association (ANZATA). Once registered with ANZATA, members have reciprocal rights with overseas art therapy associations. For further information contact ANZATA or visit their website.

To become a full member of ANZATA, applicants are required to complete an accredited masters degree in art therapy.

Entry to accredited postgraduate courses can be highly competitive.

### Employment Opportunities

Art therapists are employed in public and private hospitals, non-government organisations and in community based organisations such as welfare centres, aged care facilities and schools. They are also employed in private practice and in private health clinics.

### For Further Information

- Australian and New Zealand Art Therapy Association  
✉ [admin@anzata.org](mailto:admin@anzata.org) 🌐 [www.anzata.org](http://www.anzata.org)

### Related Jobs

Counsellor (p 133); Music Therapist (p 284); Rehabilitation Counsellor (p 352); Social Worker (p 373); Teacher - Early Childhood (p 392); Teacher - Special Education (p 398); Youth Worker (p 442).

## Artist

Artists create visual and three-dimensional forms through painting, drawing, printmaking, carving, sculpting, photography, modelling, film-making, music, acting, dancing, video and computers to communicate an impression or idea.



Artists may concentrate on a specific area of work or may use a combination of these techniques. They work in studios and may share rented space with other artists.

#### Specialisations

**Cartoonist** - conceives and develops ideas for cartoons, using illustrations and words. Cartoonists may also submit designs and rough drawings to editors for approval, prepare notes and instructions for finishing and layout, supervise a final layout and suggest improvements, and supervise photography of artwork.

**Painter (Fine/Visual Arts)** - conceives and develops ideas for paintings, drawings, designs or installations. Painters select a medium such as oil, watercolour, pencil, pastel, acrylic or ink and prepare surfaces such as canvas, paper or board to produce designs or illustrations for publications. Painters mix or apply colours using appropriate techniques while taking into account the relationships of line, colour, design and form. Painters may run workshops and oversee community arts projects.

**Printmaker** - etches designs onto metal plates to produce prints. Printmakers prepare ink and printmaking surfaces, and transfer images to print material. They cut designs into wood or linoleum, create digital designs, prepare screens for screen-printing and execute lithographic prints.

**Sculptor** - conceives and develops designs for sculpture. Sculptors decide on the material and techniques to be used when sculpting and select materials of suitable proportions, quality and texture. They then sketch designs or make models of wax or plaster, and carve, model or assemble materials to the desired form using hand or power tools. They may also fire clay objects in kilns and prepare moulds for casting sculptures in metal.

#### Personal Requirements

- artistic ability
- good hand-eye coordination
- creativity
- self-discipline
- promotional skills
- knowledge of business/management skills, if self-employed.

#### Education and Training

You can work as an artist without formal qualifications. However, entry to this occupation may be improved if you have qualifications in relevant disciplines including creative, fine and visual arts, which may enhance your skills. Certificate and diploma courses in these areas are widely available and offered by various Registered Training Organisations, including TAFE. Degree courses in these areas are also widely available at most universities in Victoria. Refer to institution handbooks for further details.

Entry to certificate courses usually requires Year 10. Entry to diploma courses usually requires completion of Year 12. Entry to degree courses usually require you to gain your VCE. Applicants may also be required to attend an interview and/or present a folio of work. A high level of talent is required. The various institutions have different

prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information.



Costs, duration and entry requirements may vary between courses. See the online entry for Artist at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Employment Opportunities

Artists often establish a studio or cooperative base and take part in group or individual exhibitions. They may sell their work to or through art galleries. Possible employers include educational institutions, television and theatre companies, design and printing firms, hospitals and museums. Artists may also be hired to create a specific piece of work for an individual or organisation.

Most artists take on other jobs for financial support. Job opportunities depend on the demand for artistic services, the quality of the artist's work and their reputation within the arts industry.

#### For Further Information

- Innovation and Business Skills Australia  [www.ibsa.org.au](http://www.ibsa.org.au)
- National Association for the Visual Arts  [www.visualarts.net.au](http://www.visualarts.net.au)

#### Related Jobs

Conservator (p 127); Craftsperson (p 135); Desktop Publisher (p 145); Games Developer (p 198); Graphic Designer (p 206); Illustrator (p 221); Interior Designer (p 234); Jeweller (p 237); Multimedia Developer (p 281); Photographer (p 317); Picture Framer (p 321); Taxidermist (p 391); Teacher - Art (p 391); Textile Designer (p 401).

## Arts Administrator

Also known as Arts and Cultural Planner and Cultural Development Officer.

Arts administrators manage artistic and cultural venues such as theatres and art galleries.

Arts administrators may perform the following tasks:

- seek sponsorship and funding from federal, state, territory and local governments and community and industry organisations
- prepare and submit funding applications
- negotiate with artists and performers regarding contracts
- coordinate arts programs
- coordinate sound and lighting, stage management and security, box office sales, distribution and sale of publications, public relations and catering
- take part in the commissioning and purchasing of works of art
- organise and promote exhibitions and events
- help to develop and implement the organisation's strategic plans and marketing strategies
- manage the organisation's human and financial resources, including budget preparation
- provide an appropriate working environment for employees
- liaise with the media
- provide education services to the public
- make recommendations on cultural grants



The National Art School is Australia's oldest and most renowned visual arts institution, acknowledged nationally and internationally as a centre of excellence in fine art education. The School provides degree courses, including the Bachelor of Fine Art, as well as high school enrichment programs and short courses.

[www.nas.edu.au](http://www.nas.edu.au)

CRICOS Provider Code 03197B



- make sure that corporate and legal requirements are complied with
- provide support in policy development and report to the board of directors.

The duties of arts administrators vary according to the type of cultural or artistic environment in which they are employed, the level at which they are employed and the size of the organisation. In small organisations, arts administrators may be involved in all aspects, whereas in large organisations they usually specialise in one particular area such as marketing, education or seeking sponsorship.

#### Personal Requirements

- good oral and written communication skills
- able to relate to people of diverse backgrounds
- good organisational and management skills
- able to handle finances
- able to work under pressure and to deadlines
- able to work flexible hours
- appreciation of the role of the arts in the community.

#### Education and Training

To become an arts administrator you usually have to study a degree at university with a major in one area of the arts, followed by a postgraduate qualification in arts administration or arts management. You may also consider bachelor degrees such as commerce, economics and finance which emphasise management, financial and business skills. These courses are offered at most universities in Victoria. Refer to institution handbooks for further details.

To get into these courses you usually need to gain your VCE. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

#### Employment Opportunities

Arts administrators may work for national performing arts companies, local councils, regional community arts centres, museums, galleries, orchestras and entrepreneurial organisations such as concert and theatrical promoters. They also work for government departments and funding organisations such as the Australia Council. Some are self-employed, others work in partnerships.

Opportunities will vary depending on the level of activity in the arts and media industries in regional and metropolitan centres. The long-term job prospects for arts administrators are affected by the level of government funding and corporate sponsorship.

#### For Further Information

- Craft Victoria ☎ (03) 9650 7775 ✉ [craftvic@craftvic.org.au](mailto:craftvic@craftvic.org.au)  
🌐 [www.craftvic.org.au](http://www.craftvic.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Actor (p 51); Community Worker (p 122); Company Secretary (p 123); Conservator (p 127); Dancer (p 140); Journalist (p 239); Museum Curator (p 283); Musician (p 284).

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**vu.edu.au/aeht**

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## Astronomer

Astronomers study planets, stars, galaxies and other objects in the observable universe and use this information for theoretical and practical purposes.

Astronomers may perform the following tasks:

- observe objects in space, from the Earth's surface and via orbiting satellites, using a wide range of specialised telescopes or detectors
- design and attach special equipment to telescopes or spacecraft when necessary
- make calculations from mathematical and physical principles to study the behaviour of matter and energy in the visible universe
- record, analyse and compare results of observations using complex electronic and computer equipment
- develop theories to explain recorded observations and to make predictions, and express these as mathematical equations
- attempt to understand the fundamental nature, origin and evolution of the universe
- investigate the formation and evolution of the solar system
- use computers to produce star catalogues and tables of measurements for use in navigation, surveying, time determination and other disciplines
- develop instruments and detectors for all radiation (radio, infra-red, optical, X-ray, gamma ray, cosmic ray) observed from the Earth's surface or via spacecraft
- present the results of their work at scientific meetings and publish them in relevant scientific journals.

Astronomers usually perform either observational or theoretical tasks. They have three main areas of study: the movement and position of stars, planets, galaxies and other objects; their physical and chemical properties; and their origins and evolution.

Most astronomers work in government agencies, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and observatories, or teach in universities.

Astronomers who need to make observations may need to travel long distances to observatories and may work long hours, often at night. However, more time is spent using computers than in personally observing with telescopes.

#### Personal Requirements

- imagination
- patience
- an inquiring mind
- interest and high level of competence in mathematics, computing and physics
- good oral and written communication skills.

#### Education and Training

To become an astronomer you usually have to study science at university with a major in astronomy, astrophysics or physics, preferably at honours level, followed by a masters and/or doctorate in astronomy or astrophysics. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, geology, higher level mathematics, physics, chemistry, psychology and biology are normally required. Entry to postgraduate courses usually requires a relevant bachelor degree. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

*La Trobe University - Bundoora Campus:*

Bachelor of Science, majoring in physics or space science, 3 years full time or equivalent



#### *Monash University - Clayton Campus:*

Bachelor of Science, majoring in astronomy and astrophysics or physics, 3 years full time or equivalent

#### *RMIT University - City Campus:*

Bachelor of Science (Applied Sciences), majoring in physics, 3 years full time or equivalent

#### *University of Melbourne - Parkville Campus:*

Bachelor of Science, majoring in astronomy and astrophysics or physics, 3 years full time or equivalent

#### **Employment Opportunities**

Vacancies occur from time to time at observatories around Australia, including the Australia Telescope National Facility (for radio astronomers), the Anglo-Australian Observatory (for optical astronomers) and at universities. These posts usually incorporate an element of teaching, administration or instrumentation design and development.

Many astronomers find work in related fields such as physics, applied mathematics and computing, and it is advisable to complete an additional major in one of these fields. Demand for this occupation is influenced by the level of government funding for research, capital investment and the opportunity for overseas research.

#### **For Further Information**

- Astronomical Society of Australia ☎ (03) 6232 3333  
✉ marc.duldig@aad.gov.au 🌐 www.astronomy.org.au
- Research School of Astronomy and Astrophysics, Mount Stromlo Observatory ☎ (02) 6125 0266 ✉ director.RSAA@anu.edu.au  
🌐 www.mso.anu.edu.au

#### **Related Jobs**

Mathematician (p 261); Physicist (p 318).

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## **Auctioneer**

Auctioneers conduct sales at which property or goods are sold to the person offering the highest purchase price.

Auctioneers may perform the following tasks:

- check the property or articles for auction, list items to be catalogued, arrange placement of advertisements in newspapers, magazines and online, and organise the display of merchandise for inspection before the auction
- talk to vendors (sellers) to work out the lowest price at which the vendor is prepared to sell (the 'reserve price')
- read out the terms and conditions of sale at auctions and, if necessary, present relevant documents (e.g. zoning restrictions applying to real estate)
- answer questions to make sure the terms of sale are clear
- comment on any special features of the item being sold, call a starting price and ask for the first bid
- ask for bids and carefully adjust the amount by which bids are advanced until the item being sold goes 'under the hammer' to the highest bidder
- supervise the work of others as sales are finalised at the auction.

Auctioneers may specialise in selling certain types of goods such as livestock, produce, real estate, vehicles, plant machinery and equipment, antiques and general household items. Some auctioneers may also specialise in online auctions.

They need to be thoroughly familiar with the property or goods they are offering for sale so they can recommend a realistic reserve price to vendors.

Auctioneers may be required to travel to inspect property or merchandise, or to visit prospective clients. During an auction they usually stand on a platform where they can be clearly heard and seen by all the people present.

Sometimes they work outdoors, for instance, when involved in an auction of livestock or real estate auctioned on the site. They may also work irregular hours, including evenings and weekends.

#### **Personal Requirements**

- strong, clear voice
- able to make quick, sound decisions
- self-confidence
- able to address large groups of people.

#### **Education and Training**

You can work as an auctioneer without formal qualifications. You will probably get some informal training on the job. However, training and experience in real estate may be advantageous in accessing employment and training opportunities. The Real Estate Institute of Victoria offers professional development for real estate practitioners who wish to specialise in auctioneering. Contact the institute for more information. The Auctioneers and Valuers Association of Australia also offers courses in auctioneering and valuation practice. Contact the Association for details.

#### **Additional Information**

All auctioneers must have a licence issued by the Business Licensing Authority of Victoria. Auctioneers who are also real estate agents are exempt from this licence. Auctioneers of dangerous and/or sensitive goods, such as firearms or live animals, may require additional licences.

#### **Employment Opportunities**

Auctioneers are employed by auctioneering firms, valuers or real estate agents, stock agents and produce firms. Some work alone or in partnership as consultants. Before becoming an auctioneer many people gain experience as an auctioneer's clerk.

Employment opportunities for auctioneers tend to increase during periods of economic growth. However, work is still available during periods of low growth, particularly when firms and individuals become insolvent and have to sell their assets to pay off debts. There is also a shift within the industry towards greater use of the internet and online auctions.

#### **For Further Information**

- The Auctioneers and Valuers Association of Australia (Inc)  
☎ (02) 8765 1573 ✉ aucval@atu.com.au  
🌐 www.avaa.com.au
- Consumer Affairs Victoria ☎ 1300 558 181 (Toll Free)  
✉ consumer@justice.vic.gov.au 🌐 www.consumer.vic.gov.au
- The Real Estate Institute of Victoria Ltd ☎ (03) 9205 6666  
✉ training@reiv.com.au 🌐 www.reiv.com.au

#### **Related Jobs**

Land Economist (p 241); Real Estate Salesperson (p 346); Stock and Station Agent (p 384); Valuer (p 424).

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## **Audiologist**

Audiologists test hearing and assess the nature of hearing disorders. They are responsible for the non-medical management and rehabilitation of hearing loss and associated disorders of communication.



Audiologists may perform the following tasks:

- establish a client's problems with hearing and listening, by conducting interviews and studying background information, such as medical history
- assess the extent of hearing loss and location of the problem using a wide range of techniques, including audiometric tests such as air and bone conduction tests
- report results of assessment and testing in writing and make referrals to medical practitioners
- provide rehabilitation programs which include counselling and guidance for the hearing impaired and their families
- assess hearing levels of workers, such as pilots or members of the armed forces, when required by employers
- prescribe, fit and evaluate hearing aids and other devices, such as cochlear implants
- provide training in communication strategies such as lip reading and in the use of auditory and other devices
- conduct follow-up consultations after hearing aids have been fitted to make sure clients receive the clearest amplification
- assist with the development and management of noise control and hearing conservation strategies in industry
- act as consultants on industrial compensation claims for work-caused hearing loss
- undertake scientific research related to sound and hearing
- teach the science of audiology and its practice
- direct projects and act as consultants to other professional groups
- supervise student audiologists.

Audiologists liaise with other health professionals such as otologists (ear specialists), speech pathologists, teachers, psychologists and doctors. They may travel to country areas where there are no resident audiologists.

#### Personal Requirements

- able to inspire confidence and cooperation
- a sympathetic and tactful approach to people's problems
- good communication skills
- analytical ability.

#### Education and Training

To become an audiologist you usually have to complete a bachelor degree in linguistics, physics, psychology, special education, speech pathology, science or a related discipline, followed by a graduate diploma and a masters degree in audiology.

To get into these bachelor degree courses you usually need to gain your VCE. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree. Relevant degrees are available at universities in Victoria. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

#### Additional Information

Graduates are eligible for full membership of the Audiological Society of Australia Inc. The Certificate of Clinical Practice is recognised by the Society as the benchmark for undertaking the clinical practice of audiology in Australia. Clinical certificates require at least 12 months of supervised clinical practice. Contact the society for details.

#### Employment Opportunities

Audiologists are employed by Australian Hearing, major hospitals, community health centres or in academic research or teaching positions. They often work in association with medical practitioners specialising in ear, nose and throat disorders. Increasing numbers are employed in private practice and a small number in special education or industrial audiology.

Demand depends on factors such as population growth, the ageing of the population, public sector funding and policies affecting the cost of services to consumers. There are opportunities for part-time work.

#### For Further Information

- Audiological Society of Australia Inc ☎ (03) 9416 4606  
✉ [info@audiology.asn.au](mailto:info@audiology.asn.au) 🌐 [www.audiology.asn.au](http://www.audiology.asn.au)
- Australian Hearing (VIC) ☎ (03) 8610 4300  
🌐 [www.hearing.com.au](http://www.hearing.com.au)

#### Related Jobs

Audiometrist (p 79); Speech Pathologist (p 377).

## Audiometrist

Audiometrists work under the direction of audiologists or medical practitioners, administering audiometric tests to measure hearing and fit hearing aids.

Audiometrists may perform the following tasks:

- administer tests to measure hearing
- explain to patients how the audiometric equipment will be used to measure their hearing
- fit earphones or bone conductors on patients and adjust controls on an audiometer to administer the tests
- send a report to the audiologist or medical practitioner once the results of a test are recorded
- take ear impressions to make ear moulds, so that a suitable hearing aid may be chosen
- fit and check hearing aids and give instructions on their use
- provide follow-up care and advice.

#### Specialisations

**Clinical Audiometrist** - performs hearing tests to assist medical practitioners and audiologists.

**Hearing Aid Audiometrist** - specialises in fitting hearing aids and advising clients on their use.

**Industrial Screening Audiometrist** - performs hearing tests for pre-employment screening. They also fit and instruct clients in the use of noise protection devices such as earplugs, and perform noise assessments in factories using sound level meters and dosimeters.

#### Personal Requirements

- good communication skills
- able to work accurately with precision instruments
- able to be patient with hearing-impaired and elderly people.

#### Education and Training

To become an audiometrist you usually have to complete a certificate in audiometric assessment. Entry to the certificate course below usually requires Year 12. Students must also have a suitably qualified supervisor to supervise practical tasks and assess clinical skills. Contact the institution for more details as requirements may change.

You can also become an audiometrist through a traineeship in Audiometric Assessment. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

There are no suitable certificate courses available in Victoria. The following course is offered via distance education.

#### Certificate Courses

**TAFE NSW, OTEN - Distance Education:**

Certificate IV in Audiometric Assessment



### Additional Information

Audiometrists are not able to work with children under the age of 5 or with patients suffering complex hearing loss. Such cases require more advanced knowledge of audiology and its associated skills. See the entry for Audiologist for more details.

### Employment Opportunities

Audiometrists are mainly employed by hearing aid firms but may also work in hospitals, laboratories and some audiology practices. There are also opportunities to work in public facilities.

Demand for audiometrists is expected to grow with the ageing of the population.

### For Further Information

- Australian Hearing (VIC) ☎ (03) 8610 4300  
🌐 [www.hearing.com.au](http://www.hearing.com.au)

### Related Jobs

Audiologist (p 78); Speech Pathologist (p 377).

## Audiovisual Technician

Audiovisual technicians operate the equipment used in the development and delivery of audiovisual presentations.

Audiovisual technicians may perform the following tasks:

- assist recording production engineers, program producers and presenters, and educators to produce sound, vision and multimedia products such as television and film productions, CDs, DVDs and video sequences
- design, assemble, operate and maintain sound and vision recording, mixing and production equipment.

Audiovisual technicians work in workshops, production studios and at other locations where audiovisual presentations are delivered, such as lecture theatres and conference venues.

### Personal Requirements

- interest in electronic sound and vision production and recording equipment
- enjoy communicating information
- normal eyesight and colour vision
- technical ability.

### Education and Training

You can work as an audiovisual technician without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses below usually requires at least Year 10. Entry to the diploma courses usually requires completion of Year 12. Applicants may also be required to attend an interview and/or submit a folio of work. Contact your chosen institution for full details.

You can also become an audiovisual technician through a traineeship in Live Production, Theatre and Events (Technical Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**Box Hill Institute of TAFE - Elgar and Whitehorse Campuses:**

Certificate IV in Screen and Media

**Chisholm Institute of TAFE - Frankston Campus:**

Certificate IV in Screen and Media

### Footscray City College:

Certificate IV in Screen and Media

**Gordon Institute of TAFE - Geelong City Campus:**

Certificate IV in Screen and Media

**Holmesglen Institute of TAFE - Chadstone Campus:**

Certificate IV in Screen and Media

**Northern Melbourne Institute of TAFE - Collingwood Campus:**

Certificate IV in Screen and Media

**Wodonga Institute of TAFE - Wodonga Campus:**

Certificate IV in Screen and Media

### Diploma Courses

**TAFE Victoria - various locations:**

Diploma of Screen and Media

**TAFE Victoria - various locations:**

Advanced Diploma of Screen and Media

**JMC Academy - South Melbourne Campus:**

Diploma of Audio Engineering and Sound Production

**RMIT University (TAFE Division) - City Campus:**

Diploma of Screen and Media

**SAE Institute - Melbourne Campus:**

Diploma of Sound Production

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Audiovisual technicians are employed by educational institutions and the training units of state and federal government departments. They may also be employed in the private sector in broadcasting organisations and by firms involved in audiovisual marketing.

Prospects in this sector may improve with advances in audiovisual technology, such as laser displays, video-conferencing, multimedia technology and digital equipment.

### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Broadcasting Technician (p 94); Education Aide (p 156); Electronics and Communications Technician (p 161); Library Assistant (p 247); Library Technician (p 247); Photographer (p 317); Production Crew Member (p 334); Sound Technician (p 375).

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## Automotive Airconditioning Fitter

Also known as Car Airconditioning Fitter.

Automotive airconditioning fitters install and repair airconditioning units in various types of vehicles and machinery, such as motorcars, trucks, vans and tractors.

Automotive airconditioning fitters may perform the following tasks:

- install the compressor and its drive from the engine, the evaporator unit (under the dashboard, in the boot or on the roof) and the electrical wiring to the units, power source and controls
- fill the unit with refrigerant and test it for leaks and malfunctions
- carry out repair work on existing units, including testing, fault finding, dismantling, repair or replacement of faulty parts, re-assembly and final testing.

Most of the work is done in a workshop.

### Personal Requirements

- enjoy practical and manual work
- good hand-eye coordination
- aptitude for mechanical work
- able to keep up to date with technological change
- problem-solving skills.

### Education and Training

To become an automotive airconditioning fitter you usually have to complete a traineeship in Automotive Mechanical. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

National environmental legislation requires those who work with refrigerant chemicals to possess special handling and/or trading licences issued by the Australian Refrigeration Council. See [www.arctick.org](http://www.arctick.org) for more information.

### Employment Opportunities

Automotive airconditioning fitters usually work in specialised workshops. They may specialise in the installation, repair and servicing of passenger cars, trucks, buses and coaches, and other heavy vehicles. They may also work for motor vehicle dealers; defence, communications and energy supply authorities; the minerals industry; public works and transport; and private firms with large fleets of vehicles. Some automotive airconditioning fitters establish their own businesses.

### For Further Information

- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

### Related Jobs

Automotive Electrician (p 81); Light Vehicle Motor Mechanic (p 250); Refrigeration and Airconditioning Mechanic (p 351).

## Automotive Electrician

Also known as Automotive Electrical Fitter, Automotive Electrical Mechanic and Car Electrician.

Automotive electricians install, maintain, identify faults and repair electrical wiring and computer-based equipment in motor vehicles and related equipment, such as caravans, trailers, earthmoving equipment, mining equipment, marine applications and agricultural equipment.

Automotive electricians may perform the following tasks:

- work with computer-controlled engine management systems
- service, identify and repair faults on electronically controlled vehicle systems such as electronic fuel injection, electronic ignition, anti-lock braking, cruise control, automatic transmission, air bags and airconditioning
- install electrical equipment such as gauges, lighting, alternators and starter motors in vehicles
- install electrically operated accessories such as radios, heating or demisting equipment, airconditioners, driving lamps and anti-theft systems
- use meters, test instruments and circuit diagrams to find electrical faults
- adjust engine control systems and timing to make sure vehicles are running at peak performance
- test, recondition and replace faulty alternators, generators, starter motors and related items such as voltage regulators and batteries
- repair or replace faulty ignition, electrical wiring, fuses, lamps and switches
- use hand tools, specialised electrical tools and instruments and machines, including drills, grinders, presses and lathes
- solder or weld when repairing electrical parts
- sell and install electrical parts and accessories
- install, repair and service airconditioning systems.

Automotive electricians work for automotive electrical workshops, vehicle dealerships and service stations, either in motor vehicles themselves, at work benches repairing parts, or providing mobile and roadside repairs. They are usually required to wear protective clothing. Automotive electricians may have contact with customers.

### Personal Requirements

- enjoy practical and manual work
- good eyesight and colour vision
- good hand-eye coordination
- able to approach work in a systematic and thorough way
- able to keep up to date with technological changes
- good at technical activities.

### Education and Training

To become an automotive electrician you usually have to complete an apprenticeship in Automotive Electrical Technology. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Automotive electricians work for automotive electrical specialists, motor vehicle repairers, large transport firms and some government departments. With the increasing use of electronically controlled systems, the regular updating of skills and knowledge is essential. Computerised diagnostic equipment training and expertise in



advancing systems (e.g. electronic fuel injection and vehicle management) are vital.

#### For Further Information

- Institute of Automotive Mechanical Engineers Inc  
☎ (02) 9648 1412 ✉ [inbox@iame.com.au](mailto:inbox@iame.com.au)  
🌐 [www.iame.com.au](http://www.iame.com.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Automotive Airconditioning Fitter (p 81); Automotive Parts Interpreter (p 82); Brake Mechanic (p 92); Heavy Vehicle Motor Mechanic (p 212); Light Vehicle Motor Mechanic (p 250).

## Automotive Parts Interpreter

Also known as Car Parts Interpreter and Spare Parts Salesperson.

Automotive parts interpreters sell automotive parts and accessories, such as engine, brake and transmission components, batteries, headlights, tyres, seat covers and car cleaning equipment, in retail or wholesale outlets.

Automotive parts interpreters may perform the following tasks:

- talk to customers to find out their exact needs
- identify the make, model and variations of motor vehicles and automotive equipment
- check catalogues or computer databases to identify and locate the source of required parts
- recommend parts to customers
- receive orders for parts
- order parts from warehouse and external suppliers
- prepare invoices and other finance arrangements for the sale of stock
- calculate tax, discounts and prices
- process cash/credit transactions
- collect, pack, despatch or deliver ordered parts
- keep sales and stock records
- participate in stocktaking (regular checking and valuing of goods) and update computer data
- assist customers in repairing or replacing parts
- set up merchandise displays.

Automotive parts interpreters may specialise in one particular make of vehicle. Most of their time is spent in contact with customers, either in person or by telephone.

#### Personal Requirements

- enjoy clerical and administrative work
- neat personal appearance
- good communication and sales skills
- organised approach to work
- problem-solving skills
- able to work quickly under pressure
- interested in motor vehicle parts and their functions
- aptitude for working with computers.

#### Education and Training

To become an automotive parts interpreter you usually have to complete an apprenticeship in Automotive Sales. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

A drivers licence would be an advantage.

#### Employment Opportunities

Automotive parts interpreters usually work in motor accessory dealerships, spare parts divisions of large car dealerships and motor wreckers. They may provide parts for cars, trucks, vans and trailers, and agricultural, industrial and marine equipment. Increasingly, spare parts interpretation involves the use of computers.

Job opportunities depend on trends in automobile use and ownership, the degree of consumer reliance upon parts replacement as opposed to vehicle upgrade, and the rate of technological change.

#### For Further Information

- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Automotive Electrician (p 81); Brake Mechanic (p 92); Engine Reconditioner (p 163); Heavy Vehicle Motor Mechanic (p 212); Inventory and Supply Officer (p 235); Light Engine Mechanic (p 249); Light Vehicle Motor Mechanic (p 250); Radiator Repairer (p 344); Service Station Attendant (p 366); Tyre Fitter and Repairer (p 421); Vehicle Dismantler (p 426).

## Aviation Firefighter

Aviation firefighters fight fires in aircraft and buildings at airports, provide rescue and first aid services for aircraft passengers and crew, provide technical advice on fire safety and assist in educating airport users about firefighting and safety.

Aviation firefighters may perform the following tasks:

- assist in the evacuation of people in life-threatening situations using mobile high-performance vehicles and watercraft
- fight fires using a range of equipment, such as hoses, foam sprayers and monitors
- administer first aid
- protect property endangered by fires
- protect the environment (as necessary) in an emergency situation
- participate in organised drills for fire control and rescue work
- conduct fire safety inspections and inspect fire alarm boards
- test and maintain fire vehicles, hoses and other equipment
- assist in the operation of the Fire Control Centre at airports
- observe aircraft arrivals and departures.

The majority of aviation firefighters in Australia are employed by Airservices Australia in the Aviation Rescue and Fire Fighting Service (ARFF).

Shift work is compulsory. At many locations, the ARFF operates 24 hours per day; however, at smaller locations the service may be provided for fewer hours. The length of individual shifts varies between 10 and 16 hours, depending on the requirements of the location, and are organised around a rotating roster.

#### Personal Requirements

- physically fit
- able to swim
- comfortable working at heights
- comfortable working in confined spaces
- able to work in a structured service environment
- able to work as part of a team
- good interpersonal and communication skills
- Australian citizenship or permanent residency.



## Education and Training

To become an aviation firefighter you must successfully complete a range of physical and physiological tests, an interview, a comprehensive medical examination and an aptitude test.

You will also need a current Senior First Aid Certificate or equivalent prior to the commencement of the recruitment course. You will also need to hold a current manual drivers licence and either hold, or be able to gain, a Heavy Rigid Vehicle licence.

To be appointed as an Aviation Firefighter, successful recruits must attend and pass an extensive training course in aviation firefighting. The training is held at Airservices Australia's Learning Academy in Melbourne, as well as at each ARFF station.

Details of all aspects of this occupation, including training and vacancies, can be found on the Airservices Australia website.

## Employment Opportunities

Airservices Australia provides a rescue and firefighting service at 21 airport locations around Australia. Vacancies are limited, and the selection process is held only when vacancies occur. Competition for positions is very strong.

Applicants must be prepared to transfer to any location where an ARFF fire station is located.

Opportunities to become an aviation firefighter also exist after joining the Royal Australian Air Force and the Royal Australian Navy.

## For Further Information

- Airservices Australia, Aviation Rescue and Fire Fighting Service  
☎ 1300 301 120 ✉ [avrecruit@airservicesaustralia.com](mailto:avrecruit@airservicesaustralia.com)  
🌐 [www.airservicesaustralia.com/careers](http://www.airservicesaustralia.com/careers)

## Related Jobs

Fire Extinguisher Servicer (p 181); Firefighter (p 182).

- physically fit
- neat and clean.

## Education and Training

To become a baker you usually have to complete an apprenticeship in Food Processing (Retail Baking - Bread/Combined). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Employment Opportunities

Bakers are employed in factories producing baked products, specialty cake stores and 'in house' bakeries in supermarkets as well as independent or franchise bakeries.

Bakers with sufficient start-up money may set up their own businesses.

## For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- National Baking Industry Association ✉ [nbia@nbia.org.au](mailto:nbia@nbia.org.au)  
🌐 [www.nbia.org.au](http://www.nbia.org.au)
- The Baking Industry Association of Victoria (Inc)  
☎ (03) 5461 1150 ✉ [biav@baking.com.au](mailto:biav@baking.com.au)  
🌐 [www.baking.com.au](http://www.baking.com.au)

## Related Jobs

Chef (p 109); Confectioner (p 126); Cook (p 130); Pastrycook (p 311).

## Bank Officer

Also known as Teller.

Bank officers (including building society and credit union officers) receive and pay out money and assist customers with loans, foreign currency and investments.

Bank officers may perform the following tasks:

- identify customer needs and refer customers to appropriate banking services
- accept money or cheques deposited by customers, verify records and receipts, and credit customers' accounts
- pay money to customers according to advice slips, cheques or negotiable documents, and debit customers' accounts
- assess the viability and credit risk of business and consumer loan proposals
- conduct foreign currency transactions for overseas travellers
- provide change and cash cheques
- record transactions
- balance cash and advise supervisors of cash position or discrepancies
- answer customer enquiries
- open and close accounts for customers.

Most bank employees work in a branch network where customers are mainly individuals and local businesses. Bank officers can request transfers to work in other branches and departments.

They may specialise in areas such as export financing, international banking, superannuation, personnel administration, law, economics, accountancy, corporate and commercial lending, public relations, advertising or information systems.

# B

## Baker

Bakers make bread, cakes and pastries, using flour and other ingredients.

Bakers may perform the following tasks:

- check that equipment meets health and safety regulations
- check the quality of raw materials and weigh ingredients
- mix dough by hand or machine, then place in tins or trays
- load tins or trays into ovens, keeping an eye on the oven temperatures and the appearance of the bread, cake or pastry
- unload ovens when the bread is baked, take bread out of trays and put aside to cool
- glaze or decorate cakes and pastries with icing or cream
- order baking supplies from wholesalers
- operate slicing and wrapping machines
- serve customers.

The increased use of machinery has reduced heavy work for bakers. However, they still have to stand a lot of the time. Most bakers work full time, and they often work late at night or early in the morning. They may also work on weekends and public holidays. Conditions in the bakery are usually hot and humid.

## Personal Requirements

- enjoy practical work
- good hand-eye coordination
- good health, with no skin allergies or chest complaints



### Specialisations

**Bank Teller/Customer Service Officer** - sells and administers bank products and services.

**Credit Officer (Lending/Loans Officer)** - assesses the viability and credit risk of business and consumer loan proposals and controls and processes accounts.

**International/Overseas Officer** - deals with international finance enquiries and transactions for customers, including documentation for importing and exporting.

**Operations/Accounts Officer** - performs clerical duties such as opening and sorting mail, filing correspondence and documents, recording items paid to and cashed by the tellers and processing and updating daily transactions.

**Telephone Consultant (Banking)** - assists customers with banking requirements over the telephone, sells bank products and services and assists customers with loan applications.

### Personal Requirements

- good communication skills
- able to make calculations quickly and accurately
- well organised
- willing to transfer to other branches if required.

### Education and Training

You can work as a bank officer without formal qualifications. You will get some training on the job. However, entry to this occupation may be improved if you have qualifications. A degree in business, commerce or economics with a major in banking or finance may be required for entry to more specialised positions. Degree courses in these areas are available at most universities in Victoria. Check institution handbooks for full details.

Entry to the certificate and diploma courses below usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

You can also become a bank officer through a traineeship in Financial Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**Gordon Institute of TAFE - Geelong City Campus:**

Certificate III in Financial Services

**Holmesglen Institute of TAFE - Chadstone Campus:**

Certificate III in Financial Services

**RMIT University (TAFE Division) - City Campus:**

Certificate IV in Financial Services

**South West Institute of TAFE - Warrnambool Campus:**

Certificate II in Financial Services

Certificate III in Financial Services

Certificate IV in Financial Services

**Sunraysia Institute of TAFE - Mildura Campus:**

Certificate II in Financial Services

Certificate III in Financial Services

Certificate IV in Financial Services

**Victoria University (TAFE Division) - Footscray Nicholson Campus:**

Certificate IV in Financial Services

### Diploma Courses

**Holmesglen Institute of TAFE - Chadstone Campus:**

Diploma of Financial Services (Banking)

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Financial Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Officers who wish to be considered for promotion are encouraged to undertake further studies and may receive study assistance from their employers to do so.

### Employment Opportunities

Bank, building society and credit union officers are employed in a variety of financial institutions, including merchant banks, finance companies, insurance companies and stockbroking firms.

The banking and financial industries are currently undergoing rapid change. Branch closures, the introduction of new technology and new ways of conducting banking business are affecting employment demand. The banking industry periodically reduces its workforce.

Competition is strong for entry-level vacancies. Contact individual financial institutions for recruitment information.

There are many different career paths available. Staff transfers are an important part of the banking industry and, throughout their careers, officers may be required to serve at any point where the bank is represented. This could include administrative departments and branch offices in capital cities or country towns.

### For Further Information

- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@fsunion.org.au](mailto:careerscentre@fsunion.org.au) 🌐 [www.fsunion.org.au](http://www.fsunion.org.au)
- Finsia ☎ 1300 346 742 ✉ [membership@finsia.com](mailto:membership@finsia.com)  
🌐 [www.finsia.com](http://www.finsia.com)

### Related Jobs

Accounts Clerk (p 50); Actuary (p 52); Administrative Assistant (p 54); Cashier (p 107); Economist (p 154); Financial Dealer and Broker (p 179); Financial Dealer's Assistant (p 181); Insurance Broker (p 231); Insurance Officer (p 232); Mathematician (p 261); Postal Employee (p 329).

## Bar Attendant

Also known as Beverage Attendant.

Bar attendants prepare, mix and serve drinks to customers in hotels, bars, cafes, restaurants and clubs.

Bar attendants may perform the following tasks:

- serve alcoholic and non-alcoholic drinks
- draw beer from the tap or pour from bottles
- mix ingredients to make cocktails and slice fruit to garnish drinks
- prepare and serve a variety of coffees
- refill drink and cigarette dispensers
- collect glasses from tables and place them in glass washing machines
- wipe down tables and empty ashtrays
- collect payment, operate cash registers and give change
- arrange bottles and glasses on shelves
- clean bar service area and polish glasses
- assist in the cellar
- assist in stock control
- maintain workplace hygiene, occupational health and safety, and security procedures.



Bar attendants work in venues that are often busy and noisy. They may have to deal with difficult customers who may be drunk. They usually work shifts, including weekends and public holidays. Uniforms may be supplied by employers. Bar attendants must be at least 18 years of age, although some training providers give exemptions for the purpose of training.

#### Specialisations

**Bar Manager** - oversees and manages the entire operation of a bar, from the purchase and pricing of beverages, to hiring and training staff, maintaining records of stock levels and financial transactions, and making sure staff follow liquor laws and regulations.

**Barista** - prepares and serves espresso and other espresso-based coffee drinks, such as cappuccinos and lattes.

#### Personal Requirements

- good interpersonal skills
- good memory
- efficient and speedy
- enjoy working with people
- good personal presentation
- prepared to work weekends and evenings
- good cash-handling skills
- able to stand for long periods.

#### Education and Training

You can work as a bar attendant without formal qualifications. You will probably get some informal training on the job.

You can also become a bar attendant through a traineeship in Hospitality. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Depending on the liquor licensing requirements of the venue you are working in, you may need a Responsible Service of Alcohol (RSA) certificate. RSA short courses are widely offered in Victoria by TAFE institutes and Registered Training Organisations. Contact Consumer Affairs Victoria for further details.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Bar attendants work in hotels, bars, restaurants, cafes, clubs, recreation and convention centres, and other licensed entertainment venues. As turnover is relatively high, there is generally a constant demand to replace those leaving the job.

Bar attendants who have undertaken training or are experienced are highly regarded by employers. In larger establishments, bar attendants with experience and additional training may progress to supervisory or management positions.

#### For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ aha@aha.org.au 🌐 www.aha.org.au
- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au
- Consumer Affairs Victoria ☎ 1300 558 181 (Toll Free)  
✉ consumer@justice.vic.gov.au 🌐 www.consumer.vic.gov.au

#### Related Jobs

Waiter (p 431).

## Beauty Therapist

Beauty therapists apply face and body treatments, and advise on skin care.

Beauty therapists may perform the following tasks:

- carry out skin analysis and give advice about skin and body care
- perform facial or body massage and/or aromatherapy treatment
- analyse body type and advise on exercise programs and nutrition
- use a variety of treatments and electrical equipment to treat individual skin and body conditions
- remove facial and body hair by electrolysis or waxing
- provide advice and support to clients following cosmetic surgery
- recognise problems and refer clients to medical practitioners such as dermatologists, plastic surgeons, endocrinologists, podiatrists, chiropractors and physiotherapists
- apply make-up
- perform manicures, pedicures, nail extensions and eyelash and brow tinting
- perform reception duties (e.g. receive bookings and arrange appointments)
- maintain client records
- provide advice on and sell cosmetic products and related beauty equipment.

#### Specialisations

**Beauty Consultant** - an experienced senior sales assistant who promotes one or more brands of cosmetic products in department stores and pharmacies by providing advice on the purchase and application of cosmetics.

**Beautician** - provides waxing, manicures, pedicures, eyelash and brow tinting and make-up application.

#### Personal Requirements

- well-groomed at all times
- good health
- pleasant and tactful
- genuine interest in people
- good hand-eye coordination
- sensitive when dealing with clients for body and facial treatments.

#### Education and Training

To become a beauty therapist you usually have to complete a certificate or diploma in beauty therapy.

Entry to the certificate and diploma courses usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Beauty Therapist at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a beauty therapist through an apprenticeship in Beauty Therapy. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Before selecting a course, check with a number of potential employers to make sure that the course is what they require. Employers are less likely to consider people who have completed a short course or who have qualifications that are not recognised by the industry. Beauty therapists with nationally accredited qualifications may work throughout Australia.



Working as a sales assistant in a pharmacy or retail store can provide relevant experience and familiarity with products for those wishing to train as beauticians or beauty therapists.

#### Employment Opportunities

Beauty therapists work mainly in private salons and hairdressing establishments and many are self-employed. Some beauty therapists are employed by cosmetic companies to work in large department stores, which have sections specialising in skin care and cosmetics.

Growth in the beauty industry has led to steady demand for well-trained beauty therapists.

#### For Further Information

- Advanced Association of Beauty Therapists ☎ 1300 309 022  
✉ info@aabth.com.au 🌐 www.aabth.com.au
- Service Skills Australia 🌐 www.serviceskills.com.au

#### Related Jobs

Body Artist (p 90); Hairdresser (p 208); Make-up Artist (p 253); Nail Technician (p 286).

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#### Does your training have the tick?

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| • Nationally Recognised Training                   | <input checked="" type="checkbox"/> |
| • Graduates highly sought after by industry        | <input checked="" type="checkbox"/> |
| • Spacious fully-equipped training rooms           | <input checked="" type="checkbox"/> |
| • Experience gained in not-for-profit salon        | <input checked="" type="checkbox"/> |
| • No hidden costs                                  | <input checked="" type="checkbox"/> |
| • Uniform, texts, kits & products provided         | <input checked="" type="checkbox"/> |
| • Only industry-leading quality brands used        | <input checked="" type="checkbox"/> |
| • Conveniently located                             | <input checked="" type="checkbox"/> |
| • Close to public transport & parking              | <input checked="" type="checkbox"/> |
| • Friendly, qualified & dedicated staff            | <input checked="" type="checkbox"/> |
| • Small class sizes & individual attention ensured | <input checked="" type="checkbox"/> |

#### Offering courses in all aspects of Beauty Therapy

- Cert II through to Diploma - Government Funding Available -

Please call our office for further information, to receive a course prospectus or to arrange an appointment to view our college.

**Tel: 03 9464 4466 - Web: www.eznailz.com.au**

## Beekeeper

Also known as Apiarist.

Beekeepers operate beehives to produce honey and related products such as beeswax, pollen, royal jelly, propolis (bee glue and bee antiseptic) and queen bees, and to pollinate seed, fruit, nut and vegetable crops.

Beekeepers may perform the following tasks:

- build or put together parts of ready-made beehives
- treat and paint beehive parts to prevent wood rot
- negotiate with property owners and government agencies for sites on which to keep their bees
- transport hives to sites which have been assessed for honey and/or pollen production potential
- insert sheets of wax stamped with a honeycomb imprint into frames to be placed into hives
- remove honeycombs from the hive and extract honey
- look after and repair beehives and honey-extracting equipment

- control bee diseases, pests and parasites in working hives
- package and sell honey, pollen, propolis and beeswax
- re-queen colonies and raise queen bees for own use or sale
- negotiate with farmers to provide pollination services in the growing of nut, fruit, seed and vegetable crops
- process and clean beeswax.

After gaining adequate experience, beekeepers may choose to focus upon one of four main industry segments: apiary, queen bee production, marketing and packing, or pollination. Some may specialise as apiary inspectors/advisers or laboratory diagnostic technicians.

Beekeepers travel a lot, examining honey and pollen flora and transporting beehives by truck from site to site as plants start flowering. Much of their time is spent outdoors and away from home. Many wear protective clothing such as overalls, gloves and hats with nets attached to protect their faces.

#### Personal Requirements

- enjoy botany (plants) and entomology (insects)
- free of allergies and able to work with bees
- able to work in isolated areas
- willing to work long and irregular hours
- able to lift heavy weights
- happy to work alone
- able to keep accurate records.

#### Education and Training

You can work as a beekeeper without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications. The following course, offered externally throughout Australia, has no formal educational requirements.

Some previous beekeeping experience gained through hobby activities, as well as some knowledge of botany and skills in wood working and metal working, would be an advantage. Work experience with a commercial operator is recommended.

#### Short Courses

**TAFE NSW - Open Training and Education Network:**

TAFE Statement in Beekeeping - Apiculture Practices

#### Additional Information

Beekeepers are required to register with the Department of Primary Industries under the provision of the Victorian Livestock Disease Control Act 1994.

#### Employment Opportunities

Commercial beekeepers require at least 400 beehives in order to make a living. These hives are moved many times a year to take advantage of flowering times in different parts of the country. Work may be seasonal.

The increasing overseas demand for queen bees and packaged bees may provide some additional part-time positions. The cost of a full commercial venture is high, covering hives, trucks and associated extracting equipment. Beekeepers usually purchase a small plot of land (about two hectares) in an area of low human population to accommodate building honey-extraction equipment and storage sheds, a workshop and living quarters.

#### For Further Information

- Department of Primary Industries, Knoxfield ☎ (03) 9210 9222  
🌐 www.dpi.vic.gov.au
- Victorian Apiarists' Association ☎ (03) 5446 1455  
✉ info@vicbeekeepers.com.au



## Related Jobs

Botanist (p 91); Farmer/Farm Manager (p 172); Horticultural Tradesperson (p 216); Primary Products Inspector (p 330).

## Betting Clerk

Betting clerks take bets from customers either at a betting agency or over the phone, and assist bookmakers to provide betting services at race meetings.

Betting clerks may perform the following tasks:

- take bets from customers via phone or over the counter
- receive cash or record bets electronically
- check on the amounts of money placed on race entrants and advise bookmakers
- give copies of betting records to bookmakers after the closing of bets for each race
- check details and numbers on winning betting tickets against those in the betting records, and pay money on winning tickets.

### Specialisations

**Betting Agency Counter Clerk (Seller)** - handles customer bets, payments and payouts over the counter for horse and dog racing and other competitive sporting or recreation events.

**Bookmaker's Clerk** - assists bookmakers in accepting, recording and paying out bets. Bookmakers' clerks work under considerable pressure during race meetings.

**Telephone Betting Clerk (Call Centre Operator)** - records customer bets and telephone betting account details over the phone for horse and dog racing and other competitive sporting or recreation events.

### Personal Requirements

- enjoy working with people
- able to work on weekends and evenings
- good with figures
- comfortable working with computers.

### Education and Training

You can work as a betting clerk without formal qualifications, but employers generally require Year 10. You will probably get some informal training on the job.

### Additional Information

The minimum age for a betting clerk in Victoria is 18. To operate as a bookmaker's clerk, you must be registered with the Victorian Commission for Gambling Regulation (VCGR). A current National Police Certificate must be provided. For further information, contact the VCGR.

### Employment Opportunities

Betting clerks may work for the TAB, turf clubs and greyhound, racing or trotting associations. Positions are mostly casual and turnover is quite high.

### For Further Information

- Bookmakers and Bookmakers' Clerks Registration Committee - Office of Gaming and Racing ☎ (03) 8684 1910  
✉ GamingandRacingEnquiries@justice.vic.gov.au  
🌐 www.justice.vic.gov.au
- Racing Victoria Ltd ☎ (03) 9258 4258  
✉ information@racingvictoria.net.au  
🌐 www.racingvictoria.net.au

### Related Jobs

Bookmaker (p 91); Gaming Worker (p 199); Ticket Seller (p 405).

## Bicycle Technician

Also known as Bicycle Repairer and Bicycle Mechanic.

Bicycle technicians repair, service and assemble bicycles.

Bicycle technicians may perform the following tasks:

- speak with customers
- assemble packaged bicycles ready for sale from retail shops
- inspect, repair and service customers' bicycles
- fabricate components/equipment
- diagnose and road test bicycles before and after performing mechanical procedures
- perform various retail functions including maintenance of stock control systems and shop presentation.

Bicycle technicians may work in a variety of businesses including retailers, wholesalers, suppliers, manufacturers and equipment hirers. Protective clothing is usually worn when performing mechanical work.

### Personal Requirements

- enjoy practical and manual work
- physically fit
- normal eyesight and hearing
- mechanical aptitude
- good communication skills
- problem-solving skills
- no allergies or reactions to lubricants.

### Education and Training

You can work as a bicycle technician without formal qualifications. You will probably get some informal training on the job.

You can also become a bicycle technician through a traineeship in Bicycles. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Prospects depend on the popularity of bicycling, which has been increasing in recent years. Employment may be on a full-time or part-time basis and may include seasonal work around Christmas.

### For Further Information

- Retail Cycle Traders Australia Inc ☎ (03) 9376 1255  
🌐 www.rcta.org.au
- Automotive Training Victoria ☎ (03) 9866 1294  
✉ manager@atv.org.au 🌐 www.atv.org.au

### Related Jobs

Light Vehicle Motor Mechanic (p 250); Sales Assistant (p 358).

## Binder and Finisher

Also known as Bookbinder and Print Finisher.

Binders and finishers fold, collate, stitch, trim, cover and embellish a range of printed and non-printed products by hand or machine.

Binders and finishers may perform the following tasks:

- process sheets of printed material after printing by assembling the sheets, trimming them to size using automated guillotines and then folding the sheets using mechanised folders



- set up and prepare bookbinding and finishing machines, which assemble pages or attach covers to books
- prepare and apply the pastes and glues needed to hold books together (if binding books by hand), glue or sew the pages into place, and 'build' the cover around each individual book often using cloths, leathers and fine papers
- repair damaged bindings.

#### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected)
- good hand-eye coordination
- physically fit
- mechanical aptitude
- good communication skills
- able to work as part of a team
- able to pay attention to detail.

#### Education and Training

To become a binder and finisher you usually have to complete an apprenticeship in Printing and Graphic Arts (Print Finishing). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Most binders and finishers are employed by specialist printing firms. Some are self-employed. In recent years rapid changes in technology have reduced the number of binders and finishers required in printing operations.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ [info@printnet.com.au](mailto:info@printnet.com.au) ☎ [www.printnet.com.au](http://www.printnet.com.au)

#### Related Jobs

Offset Printer (p 301); Printing Hand (p 331); Printing Machinist (p 332); Screen Printer/Stencil Preparer (p 362).

## Biochemist

Biochemists study the chemistry of living organisms to increase scientific knowledge and develop ways to apply this knowledge in areas such as medicine, veterinary science, agriculture, environmental science and manufacturing. Biochemistry provides a basis for all the life sciences.

Biochemists may perform the following tasks:

- study the chemical processes which occur within individual cells
- study the processes, such as digestion and growth, which involve whole organisms
- undertake detailed chemical analysis using sophisticated instruments and techniques
- prepare, or supervise the preparation of, scientific reports and papers for journals based on observations and experiments.

#### Specialisations

**Clinical Biochemist** - works in hospital laboratories where they study the chemical composition of various tissues and body fluids to assist in the study, diagnosis and treatment of diseases.

**Industrial Biochemist** - works in laboratories in analytical and research work, such as checking the purity of food and beverages, or the enzymic production of fuels from waste products by fermentation procedures.

**Research Biochemist** - works in laboratories in universities, biotechnology companies, and agricultural, medical and veterinary institutes. They study problems such as understanding the metabolism, growth and reproduction of fungi, bacteria, plants and animals, as well as the organisation of viruses. They frequently use the latest genetic engineering and molecular-biological techniques.

#### Personal Requirements

- enjoy chemistry, biology and mathematics
- able to think logically and analytically
- able to work independently or as part of a team
- creative and imaginative.

#### Education and Training

To become a biochemist you usually have to study science or applied science at university with a major in biochemistry or applied chemistry. To get into these courses, you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, higher level mathematics, chemistry, biology and physics are normally required. Contact the universities you are interested in for more information as requirements may change.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

#### Degree Courses

The following universities offer bachelor degrees in science or applied science with major studies in biochemistry or applied chemistry, 3 years full time or equivalent.

*Deakin University - Burwood and Geelong Campuses*

*La Trobe University - Albury-Wodonga, Bendigo and Bundoora Campuses*

*Monash University - Clayton and Gippsland Campuses*

*RMIT University - Bundoora and City Campuses*

*Swinburne University of Technology - Hawthorn Campus*

*University of Melbourne - Parkville Campus*

*Victoria University - St Albans Campus*

#### Employment Opportunities

Biochemists work in scientific research institutes, universities, and federal, state and territory government organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Biochemists also work in medical research centres and hospital laboratories, and for food processing or drug manufacturing companies. Due to the high degree of specialisation required in this field, completion of a postgraduate degree is generally required for advancement to senior scientific positions.

Employment is affected by factors such as the amount of funding provided for research in both the public and private sectors, and the general level of economic activity. Competition for jobs is strong.

#### For Further Information

- Australian Society for Biochemistry and Molecular Biology (National Office) ☎ (08) 8362 0009 ✉ [asbmb@asbmb.org.au](mailto:asbmb@asbmb.org.au)  
☎ [www.asbmb.org.au](http://www.asbmb.org.au)
- Royal Australian Chemical Institute Inc. (National Office)  
☎ (03) 9328 2033 ✉ [member@raci.org.au](mailto:member@raci.org.au)  
☎ [www.raci.org.au](http://www.raci.org.au)



## Related Jobs

Biotechnologist (p 89); Chemist (p 111); Forensic Scientist (p 192); Medical Laboratory Technician (p 268); Medical Scientist (p 270); Microbiologist (p 274); Pharmacologist (p 316); Toxicologist (p 410).

## Biomedical Engineer

Biomedical engineers apply engineering and scientific methods to find solutions to problems in medicine and the life sciences.

Biomedical engineers may perform the following tasks:

- design new medical monitoring, diagnostic and therapeutic equipment
- set up and maintain biomedical equipment
- specify equipment for particular purposes
- test the safety, efficiency and effectiveness of equipment
- plan data processing services and the development of associated computing programs
- analyse new medical procedures to forecast likely outcomes
- participate in medical or scientific procedures where biomedical skills are needed
- design and deliver technology to assist people with disabilities
- analyse and design prosthetic and orthotic devices
- measure and monitor physiological systems
- diagnose and interpret bioelectric data using signal processing techniques
- provide computer analysis of patient-related data
- design and develop equipment for medical imaging to display anatomical detail or physiological function.

Biomedical engineers work in health care and must have a good theoretical and practical knowledge of engineering, a sound understanding of medical sciences and the ability to combine the two.

Biomedical engineers usually work in multidisciplinary teams with other professionals including anaesthetists, surgeons, physiotherapists, occupational and speech therapists and other medical specialists.

### Specialisations

**Bio-engineer** - applies engineering principles to the study of biological systems and processes.

**Clinical Engineer** - researches, develops and maintains instruments and equipment to aid clinical staff.

**Rehabilitation Engineer** - deals with systems and devices which improve the quality of life of people with disabilities.

### Personal Requirements

- good communication skills
- able to observe and measure accurately
- patience and imagination
- good at design
- analytical and problem-solving skills.

### Education and Training

To become a biomedical engineer you usually have to study engineering at university with a major in biomedical studies/technology. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics and chemistry are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

## Degree Courses

### La Trobe University - Bundoora Campus:

Bachelor of Electronic Engineering/Master of Biomedical Engineering, 5 years full time or equivalent

### Monash University - Clayton Campus:

Bachelor of Biomedical Science/Bachelor of Engineering, 5 years full time or equivalent

### RMIT University - City Campus:

Bachelor of Engineering (Electronic and Communication Engineering), majoring in engineering (biomedical) 4 years full time

### Swinburne University of Technology - Hawthorn Campus:

Bachelor of Engineering (Biomedical Engineering), 4 years full time (plus an optional 6-12 months of industry-based learning)

### University of Melbourne - Parkville Campus:

Bachelor of Biomedicine/Bachelor of Science (Bioengineering), 3 years full time or equivalent, followed by the Master of Engineering (Biomedical), 2 years full time

## Employment Opportunities

Biomedical engineers are employed by firms involved in the development of medical devices and instruments, and in the development/transfer of medical services technology. They are also employed in state and federal government departments, repatriation and other hospitals, rehabilitation centres and universities. Some biomedical engineers are self-employed as consultants.

### For Further Information

- Australasian College of Physical Scientists and Engineers in Medicine ☎ (02) 9700 8522 ✉ [manager@acpsem.org.au](mailto:manager@acpsem.org.au)  
🌐 [www.acpsem.org.au](http://www.acpsem.org.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)

## Related Jobs

Biotechnologist (p 89); Electronics Engineer (p 162); Industrial Designer (p 223); Materials Engineer (p 261); Microbiologist (p 274); Pharmacologist (p 316); Prosthetic/Orthotic Technician (p 337); Prosthetist/Orthotist (p 337); Toxicologist (p 410).

## Biotechnologist

Biotechnologists use plants, animals and micro-organisms, as well as biological processes, to create products for pharmaceutical, agricultural, diagnostic and environmental use.

Biotechnologists may perform the following tasks:

- study the genetic, chemical, physical and structural composition of cells, tissues and organisms
- identify ways in which organisms and biological processes can be used to create new medicines, vaccines, foods, fuels and pharmaceutical products
- develop diagnostic tools to rapidly detect diseases
- use bacteria, enzymes and other organisms for a range of industrial uses, including agricultural production, food production and waste removal
- cross-breed animals and plants to encourage beneficial characteristics such as disease resistance, improved nutrition and accelerated environmental adaptation
- conduct research and experiments in the field of genetic modification and biomolecular engineering, which involves altering the genetic make-up of plants and animals



- conduct human stem cell research with the aim of treating or preventing illnesses
- use biological engineering processes to create commercially useful biological products, such as biomaterials, chemicals or fuels.

#### Personal Requirements

- enjoy and have aptitude for science and research
- able to think logically and analytically
- able to carry out detailed and accurate work
- good communication skills
- able to solve problems and think creatively
- able to work as part of a team and independently
- able to grasp ethics of scientific research involving humans.

#### Education and Training

To become a biotechnologist you usually have to complete a degree in biotechnology or a degree in science with a major in one of the life sciences. You may also become a biotechnologist by completing a degree in chemical engineering with a major in any type of biological engineering.

To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information.

Degrees in relevant areas are available at most universities in Victoria.

#### Employment Opportunities

Biotechnologists are employed in federal, state, territory and local government organisations, including research organisations. They are also employed in private industry, hospitals, educational institutions, primary production and fisheries. Entry to some jobs is highly competitive.

While many laboratory roles are more junior, these roles provide opportunities to expand your scientific knowledge with the aim of running your own laboratory or moving into allied business services such as clinical trial development, patenting, business development, project management and regulation. Senior positions in the industry frequently require an honours, masters or doctorate degree, demonstrating a high level of competence in the laboratory.

#### For Further Information

- AusBiotech Ltd ☎ (03) 9828 1400 ✉ [admin@ausbiotech.org](mailto:admin@ausbiotech.org)  
🌐 [www.ausbiotech.org](http://www.ausbiotech.org)
- Biotechnology Online ☎ 1800 631 276  
🌐 [www.biotechnologyonline.gov.au](http://www.biotechnologyonline.gov.au)
- School of Biological Sciences, Monash University  
☎ (03) 9905 5647 ✉ [enquiries.biol@sci.monash.edu.au](mailto:enquiries.biol@sci.monash.edu.au)  
🌐 [www.biolsci.monash.edu.au](http://www.biolsci.monash.edu.au)

#### Related Jobs

Agricultural Scientist (p 57); Agricultural Technical Officer (p 58); Aquaculture Technician (p 69); Biochemist (p 88); Biomedical Engineer (p 89); Botanist (p 91); Chemist (p 111); Dispensary Technician (p 148); Environmental Scientist (p 169); Food Technologist (p 189); Forensic Scientist (p 192); Forester (p 194); Geographer (p 200); Geologist (p 202); Geophysicist (p 204); Marine Biologist (p 254); Medical Practitioner (p 268); Medical Scientist (p 270); Meteorologist (p 273); Microbiologist (p 274); Natural Resource Manager (p 287); Pharmacist (p 315); Tissue Culture Technician (p 408); Veterinarian (p 428); Zoologist (p 443).

## Body Artist

Also known as Tattooist and Piercer.

Body artists decorate or modify the face or body of their customers using techniques such as tattooing and piercing.

While some body artists perform a combination of these techniques, it is not uncommon for a body artist to specialise in one area, such as tattooing or piercing.

Body artists may perform the following tasks:

- consult with customers to discuss the services they require
- maintain, clean and sterilise equipment and rooms to meet the requirements of the State Skin Penetration Laws
- design tattoos and make line drawings from photocopies
- make stencils for tattoos
- make piercings using needles, and tattoos using a tattoo machine, ensuring high standards of hygiene and contamination control
- advise customers on after-care procedures
- promote themselves to increase client numbers.

Body artists work indoors and may be required to work evenings and weekends.

#### Personal Requirements

- maturity
- good interpersonal skills and an ability to put the customer at ease
- steady hand
- good personal hygiene
- responsible attitude to work (to eliminate risk of transmitting blood-borne viruses)
- comfortable with needles
- self-promotion skills
- artistic ability (for a tattooist).

#### Education and Training

To become a body artist, extensive on-the-job training is usually required. Before a reputable studio will consider you for training, you will need to display a high level of motivation and dedication, as competition for such positions can be extremely high. In order to be considered for training as a tattooist, you will also be required to possess a high level of drawing skill, and be able to produce a portfolio of your designs.

The length of training can vary considerably, and may range from 8-12 months for a body piercer to up to 5 years for a tattooist. During this training you will learn about sterilisation, disinfection, cross-contamination and other health and safety issues. You may also learn about customer service, anatomy, jewellery quality and selection, how to maintain and repair equipment, piercing techniques, how to use a tattoo machine, how to do stencilled outlines and how to tattoo with the appropriate shading and colouring. You will be required to observe all procedures before attempting them, and will then be closely supervised the first time you attempt a new procedure.

Typically, you will not be paid during this observation and training period, so it requires a high level of passion and dedication to reach the point of becoming a skilled body artist.

#### Additional Information

Many studios prefer to train individuals in their mid-twenties or older. Usually, you will also be required to possess a Senior First Aid Certificate.

#### Employment Opportunities

Despite the growing popularity of body modification, body artistry is a highly competitive field. The majority of body artists work on a



subcontractor basis, and are paid for the work they do rather than a fixed salary.

Job prospects may depend largely on an individual's reputation and self-promotion skills.

As it is difficult to predict customer demand for body art, a body artist's income can be unpredictable.

#### For Further Information

- Professional Tattooing Association of Australia Inc  
☎ (03) 9749 8028 ✉ tat2tapestry@optusnet.com.au
- The Piercing Urge (VIC) ☎ (03) 9530 2244  
✉ louise@thepiercingurge-training.com.au  
🌐 www.thepiercingurge-training.com

#### Related Jobs

Beauty Therapist (p 85); Hairdresser (p 208); Make-up Artist (p 253).

## Bookmaker

Bookmakers offer odds and take bets on racing results at horse racing, harness racing, greyhound racing and other sporting events.

Bookmakers may perform the following tasks:

- attend races to provide a betting service
- work out the odds on race entrants after considering such things as the type of event, the handicap of the competitors, the condition of the track and the odds offered by other bookmakers
- display the odds for each race on a betting board, amending them according to variations in betting demand
- issue betting tickets for people making a bet (called 'punters'), giving details of bets such as race number, runner's name and number, stake, win and/or place dividend
- pay bets on the results of each race; or on a combination of races.

Bookmakers keep in contact with punters and people in the racing industry such as racing stewards, club administrators and government department officials. A considerable amount of contact with the public is involved.

#### Specialisation

**Bookmaker's Agent** - may perform the same function as a bookmaker on the bookmaker's behalf, when the bookmaker is absent.

#### Personal Requirements

- able to make calculations quickly and accurately
- able to work under pressure
- good oral communication skills
- comfortable working with computers.

#### Education and Training

You can work as a bookmaker without formal qualifications but you will need to obtain a special licence. Experience as a bookmaker's clerk is also usually required. Employers generally require Year 10.

Applicants must have a reasonable knowledge and understanding of the Rules of Racing as well as relevant legislation governing bookmaking in Victoria, and be prepared to attend at least three interviews before a decision is made on their application.

#### Additional Information

To operate in Victoria as a bookmaker, you must be guaranteed by the Victorian Bookmakers Association. You must also meet strict financial and personal criteria, including integrity checks, and be registered by the Victorian Commission for Gambling Regulation. You will also need a permit from Racing Victoria Limited for thoroughbred racing, Harness Racing Victoria for harness racing, or the Greyhound Racing

Authority for greyhound racing. For further information, contact the relevant authority.

The minimum age for becoming both a bookmaker's clerk and bookmaker is 18 years. For information on how to become a bookmaker's clerk, refer to the entry for Betting Clerk.

#### Employment Opportunities

Falling racecourse attendance has resulted in a reduction in the number of operating bookmakers. Many work part-time and have other means of employment.

#### For Further Information

- Harness Racing Victoria ☎ (03) 8378 0200 ✉ info@hrv.org.au  
🌐 www.harness.org.au/vic.cfm
- Racing Victoria Ltd ☎ (03) 9258 4258  
✉ information@racingvictoria.net.au  
🌐 www.racingvictoria.net.au
- Victorian Bookmakers Association Inc ☎ (03) 9376 1933  
✉ enquiries@vicbookmakers.com.au  
🌐 www.vicbookmakers.com.au

#### Related Jobs

Accounts Clerk (p 50); Betting Clerk (p 87); Cashier (p 107).

## Botanist

Also known as Plant Scientist.

Botanists study the biology of all types of plants to increase scientific knowledge and apply this knowledge in areas such as conservation and management of natural resources, agriculture, forestry, horticulture, medicine and biotechnology.

Botanists may perform the following tasks:

- investigate the effects of environmental factors such as rainfall, temperature, sunlight, soil, topography (surface features) and disease on plant growth
- grow plants under controlled conditions to assess the significance of environmental and genetic variables
- study the genetics of plants using biochemical and molecular techniques in the laboratory in order to determine the patterns of plant evolution
- study the nature and occurrence of plant chromosomes, cells and tissues
- prepare scientific reports and papers
- supervise and coordinate the work of technical support staff
- work with other scientists to develop drugs, medicines and other products from plants
- search for and classify new species of plants and identify plant specimens
- prepare handbooks for plant identification
- use computers for information/data storage and for analysis of data.

Botanists work in laboratories, offices and in the field, alone or with other life scientists. They may work irregular hours and live in remote areas when carrying out research.

Botanists may carry out fieldwork to collect and document plant species and numbers in particular areas. They may be approached to advise on environmental and management issues and possible courses of action.

#### Specialisations

**Marine Botanist** - studies marine plants and related underwater environments.



**Plant Ecologist** - studies the relationships between plants and their environment. This may include investigations into the effects of rainfall, temperature, sunlight, soil, terrain, animals, pollution and diseases on plant types and their distribution.

**Plant Pathologist** - studies the effects of diseases harmful to crop growth and assists in developing methods to control them.

**Plant Physiologist** - studies internal plant functions and their chemical basis to learn how they grow, process nutrients and reproduce.

**Plant Taxonomist** - studies and documents the diversity in plant life and develops classifications reflecting evolutionary relationships between different plant groups and species.

#### Personal Requirements

- interested in plants and research
- analytical skills
- aptitude for working with computers
- patience
- enjoy working outdoors
- able to work independently or as part of a team.

#### Education and Training

To become a botanist you usually have to study science at university with a major in botany, horticulture or plant sciences. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer bachelor degrees in these areas. Contact your preferred institution for full details.

#### Employment Opportunities

Botanists are employed by universities and research organisations, and in industries such as horticulture. Other major areas of employment include state, territory and federal government departments and organisations concerned with conservation, wildlife management, environmental control, fisheries, national parks, and vermin and noxious weeds. There is growing employment with environmental consultancy firms, especially in the areas of mining and environmental restoration.

Employment opportunities for botanists are influenced by levels of government and industry funding for environmental research and development, and the growing community awareness of environmental and conservation issues. Demand for plant physiologists, agronomists and plant pathologists is also influenced by trends in the horticultural and agricultural industries.

#### For Further Information

- HR Services Team, Landmark Operations Limited  
✉ asklandmark@landmark.com.au ☎ www.landmark.com.au
- Environment Protection Authority, Information Centre  
☎ (03) 9695 2722 ☎ www.epa.vic.gov.au
- National Herbarium of Victoria, Royal Botanic Gardens  
☎ (03) 9252 2300 ☎ www.rbg.vic.gov.au

#### Related Jobs

Beekeeper (p 86); Biotechnologist (p 89); Environmental Scientist (p 169); Forensic Scientist (p 192); Marine Biologist (p 254); Park Ranger (p 309); Viticulturalist (p 430); Winemaker (p 437).

## Brake Mechanic

Also known as Brake Technician.

Brake mechanics diagnose faults and repair, replace or overhaul and test the parts of disc, drum or power brake systems used on all types of motor vehicles.

Brake mechanics may perform the following tasks:

- work out faults in brake systems by talking to the vehicle operator and driving the vehicle, noting its performance, or by reading data from the vehicle's computer control system
- diagnose and correct anti-lock braking faults
- examine brake units, including steel and flex hoses and handbrake cables, for wear, damage or possible failure, and repair or replace as required
- measure brake drums and disc rotors to determine if wear or finished size is excessive
- test brake units to make sure outputs are to the specified level (this includes electronics now widely used on late model vehicles and trailer/caravan brakes)
- repair or replace leaky brake cylinders
- attach new linings to brake shoes by bonding or riveting (this is a separate semi-skilled operation in some repair shops)
- machine discs and drum brakes where indicated
- fit wheel onto hub and tighten wheel fixings to specified torque
- ensure brake systems are filled with correct brake fluid and are functioning correctly
- bleed the hydraulic brake system.

Brake mechanics may specialise in light or heavy vehicles. Some brake mechanics specialise in compressed air brake systems used by trucks, buses and semi-trailers.

#### Personal Requirements

- enjoy practical and manual work
- mechanical aptitude
- able to work accurately.

#### Education and Training

To become a brake mechanic you usually have to complete an apprenticeship in Automotive Specialist. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

A drivers licence would be an advantage.

#### Employment Opportunities

Brake mechanics work for brake repair specialists and motor vehicle repair firms in the metropolitan area and in larger country towns.

Employment opportunities are affected by the level of motor vehicle use.

#### For Further Information

- Institute of Automotive Mechanical Engineers Inc  
☎ (02) 9648 1412 ✉ inbox@iame.com.au  
☎ www.iame.com.au
- Automotive Training Victoria ☎ (03) 9866 1294  
✉ manager@atv.org.au ☎ www.atv.org.au
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ vacc@vacc.com.au ☎ www.vacc.com.au



#### Related Jobs

Automotive Electrician (p 81); Automotive Parts Interpreter (p 82); Engine Reconditioner (p 163); Heavy Vehicle Motor Mechanic (p 212); Light Engine Mechanic (p 249); Light Vehicle Motor Mechanic (p 250).

## Brewery Worker

Also known as Brewhouse Hand.

Brewery workers produce, test, package, store and despatch beer in kegs, bottles and cans.

Brewery workers may perform the following tasks:

- receive, store and handle raw materials
- grind grain and mix raw materials, direct their flow into silos or malt mills, and weigh milled grain into containers above vessels and cereal cookers
- start the beer brewing cycle and monitor pressure, temperature and flow gauges
- operate heating, chilling, freezing, pasteurising and carbonating equipment
- mash, boil and cool ingredients
- remove yeast from beer fermenting containers
- transfer fermented beer to vats to mature, and add more ingredients
- pump beer through a filter, adjusting the pressure and flow of carbon dioxide according to instructions
- check containers and make sure they are filled, capped, pasteurised, labelled and packed as they pass through machines
- operate high-speed packaging machinery such as bottle/can fillers and labellers
- operate equipment used for washing and filling kegs, cans and bottles
- perform general maintenance duties.

Most brewery processes are performed by machines. Workers supervise their operation and monitor product quality. Brewery workers may have to stand for long periods. Protective clothing is provided when necessary. Shift work may be involved.

#### Personal Requirements

- enjoy practical work
- at least 18 years of age
- good health
- physically fit
- able to work safely and be safety conscious.

#### Education and Training

You can work as a brewery worker without formal qualifications. You will probably get some informal training on the job.

You can also become a brewery worker through a traineeship in Food Processing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

A forklift licence is often required.

Once you are employed, you may be able to develop, and have recognised additional skills under the Food Processing Training Package, that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Demand for brewery workers depends on consumer demand for beer, which in turn, is affected by economic and seasonal factors, and changes in consumer tastes.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200

✉ reception@agrifoodskills.net.au

🌐 <http://agrifoodskills.net.au>

#### Related Jobs

Food Process Worker (p 188); Winery Worker (p 438).

## Bricklayer

Bricklayers lay bricks, pre-cut stone, concrete blocks and other types of masonry building blocks in mortar to construct internal and external walls, repair walls and build foundations, partitions, arches and other structures.

Bricklayers may perform the following tasks:

- work from plans and specifications
- seal foundations with damp-resistant materials
- build in door and window frames
- spread layers of mortar to serve as a base and binder for bricks, remove excess mortar, and check vertical and horizontal alignment
- use various tools and brick-cutting machines to cut and shape bricks
- construct arches and ornamental brickwork
- repair and maintain clay bricks, cement blocks/bricks and related structures
- erect scaffolding (subject to licence requirements in some states).

A small number of bricklayers may specialise in refractory work, where they build and line kilns and industrial furnaces; or in the repair of brickwork damaged by salt or damp.

Bricklayers mainly work outdoors and may have to work at heights. In specialised work they may operate in tunnels and shafts. They usually work in teams. Bricklayers work mainly for builders and may have some contact with the public.

#### Personal Requirements

- enjoy practical work
- good hand-eye coordination
- good at technical activities
- able to follow plans
- physically fit and healthy.

#### Education and Training

To become a bricklayer you usually have to complete an apprenticeship in Bricklaying/Blocklaying. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

#### Employment Opportunities

Most work is in housing and commercial construction on a self-employed, sub-contracted basis. Supply and demand can change over a short period because of market conditions within the building industry. Qualified tradespeople are less likely to be affected by downturns in demand than unqualified bricklayers.



Employment may be sought with bricklaying contractors and general building contractors. By undertaking further studies experienced tradespeople may be promoted to supervisory positions. They can also advance to other positions within the building industry such as building inspector, building estimator, project manager or registered builder.

#### For Further Information

- Australian Brick and Blocklaying Training Foundation  
☎ 1300 664 496 ✉ [abbtf@abbtf.com.au](mailto:abbtf@abbtf.com.au)  
🌐 [www.becomeabricklayer.com.au](http://www.becomeabricklayer.com.au)
- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
🌐 [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Housing Industry Association (VIC) ☎ (03) 9280 8200  
✉ [vic\\_enquiry@hia.com.au](mailto:vic_enquiry@hia.com.au) 🌐 <http://hia.com.au>
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) 🌐 [www.mbav.com.au](http://www.mbav.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

#### Related Jobs

Building Contractor (p 95); Building Surveyor (p 96); Carpenter (p 105); Concreter (p 126); Construction Worker (p 127); Plasterer (p 323); Plumber (p 324); Roofer (p 356); Stonemason (p 385).

### Broadcasting Technician

Also known as Electrotechnology Communications Technician.

Broadcasting technicians install, start up, maintain and repair equipment used for the transmission and reception of television and radio broadcast signals. This includes transmitters, microphones,

mixing desks, tape recorders, CD players, computers, television cameras and telecine equipment. They may also work on microwave and satellite equipment used for the transmission and reception of voice, data and image.

Broadcasting technicians may perform the following tasks:

- check equipment to make sure it is operating properly (e.g. antennas, remote controls and auxiliary power units)
- study reports and talk to equipment operators to get details of problems
- replace faulty wiring and terminals and re-solder connections
- find and replace faulty assemblies and parts (e.g. capacitors, transistors, integrated circuits, printed circuit boards and transformers) using electronic test equipment
- check output power, frequency and modulation using test equipment
- check the operation of equipment such as antennas, remote controls and auxiliary power units
- assist with building, installing and adjusting new equipment.

Broadcasting technicians usually specialise in either TV or radio. TV broadcasting technicians work on a wider range of equipment than radio broadcasting technicians.

Broadcasting technicians work mainly indoors in television, radio, emergency services communications or recording studios, but also work outdoors on location. Shift work is common. There may be some heavy lifting when moving equipment to a workshop.

#### Specialisation

**Wireless Communications Technician** - installs, maintains and repairs cellular communications equipment, radio systems and LANs (Local Area Networks). Wireless communications technicians test,



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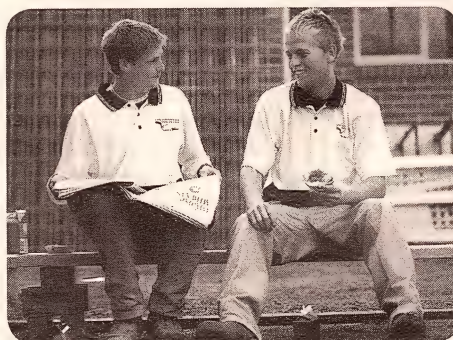
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**CALL 1300 66 44 96**

Or go to: [www.becomeabricklayer.com.au](http://www.becomeabricklayer.com.au)  
[www.abbtf.com.au](http://www.abbtf.com.au)



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adjust, repair, or replace defective equipment and components ensuring that correct calibration and frequencies are met.

#### Personal Requirements

- normal eyesight and colour vision
- good with hands
- technical ability
- good at mathematics and science
- adaptable and willing to learn about emerging technologies
- a fast methodical approach to work.

#### Education and Training

To become a broadcasting technician you usually have to complete an apprenticeship in Electronics and Communications or a traineeship in Broadcast Technology. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships and traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You can also become a broadcasting technician through a certificate in electronics and communications. Entry to the certificate course below usually requires at least Year 10. As requirements may vary, you should contact the institution for full details.

#### Certificate Courses

*Sunraysia Institute of TAFE - Mildura Campus:*

Certificate III in Electronics and Communications

#### Employment Opportunities

The majority of broadcasting technicians work in radio and television broadcasting. Some broadcasting technicians are employed by Pay TV/telecommunications companies or work in the movie industry, and a few are self-employed. Some broadcasting technicians are employed in other industries producing employee communications, sales and training programs.

Some commercial radio and television stations employ and train staff who are still studying for their qualifications. There is strong competition for available jobs.

#### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Audiovisual Technician (p 80); Business Equipment Technician (p 97); Electrician (p 160); Electronics and Communications Technician (p 161).

## Building Contractor

Also known as Builder.

Building contractors coordinate the construction of dwellings and other buildings.

Building contractors may perform the following tasks:

- examine and interpret clients' plans or arrange the drawing of plans to meet building regulations
- submit tenders (offers to do jobs at a stated price), quotes or prices for the project to clients
- arrange submission of plans to local authorities for approval and arrange inspections of building work
- organise subcontractors to carry out all stages of building and negotiate rates of pay
- calculate quantities of materials required for building projects and order these from building suppliers or advertise for tenders
- arrange delivery times of materials to coincide with various stages of the building process
- supervise the work of subcontractors to make sure buildings are of an acceptable standard and are proceeding according to the contract requirements and program schedule
- coordinate the activities of office staff involved in the preparation and payment of accounts
- comply with state and federal legal statutory contract law.

#### Personal Requirements

- good communication skills
- management and leadership skills
- good organisational skills
- good at technical activities.

#### Education and Training

To become a building contractor you usually have to complete a certificate or diploma in building and construction. Entry to the certificate and diploma courses below usually requires Year 12. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate IV in Building and Construction (Building)

#### Diploma Courses

*Chisholm Institute of TAFE - Frankston Campus:*

Diploma of Building and Construction (Building)

*Kangan Institute of TAFE - Broadmeadows Campus:*

Diploma of Building and Construction (Building)

*RMIT University (TAFE Division) - City Campus:*

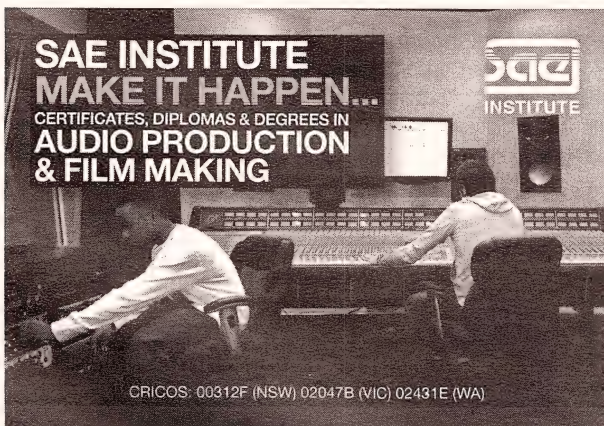
Diploma of Building and Construction (Building)

#### Additional Information

Building contractors must be registered with the Building Practitioners Board and carry a licence in order to work. Sufficient practical experience must be gained in order to apply for registration. For more information regarding registration contact the Building Practitioners Board.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Those with appropriate building qualifications are eligible to become members of the Australian Institute of Building.



CRICOS: 00312F (NSW) 02047B (VIC) 02431E (WA)



### Employment Opportunities

Most building contractors are self-employed as sole proprietors, or work as partners in small companies, or as company directors in larger firms. Building contractors may specialise in one area of construction (e.g. new homes, extensions or renovations of established homes or commercial building construction).

Most work is available in the metropolitan area although there is some opportunity to work in country areas, particularly in centres of mining activity. However, due to variations in industry demand, opportunities can change over a short period. In periods of low activity, builders with a trade qualification may seek alternative employment in their original trade area.

### For Further Information

- Australian Institute of Building (National Office) ☎ (02) 6247 7433  
✉ [education@aib.org.au](mailto:education@aib.org.au) 🌐 [www.aib.org.au](http://www.aib.org.au)
- Building Practitioners Board, Building Commission  
☎ 1300 815 127 ✉ [bpb@buildingcommission.com.au](mailto:bpb@buildingcommission.com.au)  
🌐 [www.buildingcommission.com.au](http://www.buildingcommission.com.au)
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) 🌐 [www.mbav.com.au](http://www.mbav.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

### Related Jobs

Architect (p 70); Architectural Technician (p 71); Bricklayer (p 93); Civil Engineer (p 116).

## Building Surveyor

Also known as Building Certifier and Building Inspector.

Building surveyors advise on, interpret and enforce laws and regulations regarding building construction and safety.

Building surveyors may perform the following tasks:

- provide advice and assistance to builders and owners before finalisation and lodgment of building plans to avoid potential problems
- assess building plans submitted for approval to make sure they conform to building regulations and codes of practice
- make recommendations on matters such as the provision of amenities for the community
- issue building permits
- carry out pre-purchase inspections of all types of buildings
- inspect buildings during construction to make sure that proper methods and materials are used and that they conform to building regulations
- keep records and write reports on building progress in instances where regulations have been breached and plans have been altered
- issue compliance certificates on completion
- give evidence in court cases involving breaches of building regulations
- assess the condition of existing buildings
- audit buildings for access for disabled persons.

### Personal Requirements

- enjoy technical work
- good communication skills
- management and leadership skills.

### Education and Training

To become a building surveyor you usually have to complete an advanced diploma of building surveying. However, entry to this occupation may be improved if you have a degree in building surveying. Entry to the advanced diploma courses below usually requires Year 10. Entry to the degree courses usually requires you to gain your VCE with English. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the institutions you are interested in for more information as requirements may change.

### Diploma Courses

*Chisholm Institute of TAFE - Frankston Campus:*

Advanced Diploma of Building Surveying

*Holmesglen Institute of TAFE - Chadstone Campus:*

Advanced Diploma of Building Surveying

*North Melbourne Institute of TAFE - Greensborough Campus:*

Advanced Diploma of Building Surveying

*Victoria University (TAFE Division) - Newport Campus:*

Advanced Diploma of Building Surveying

### Degree Courses

*Deakin University - Geelong Waterfront Campus:*

Bachelor of Construction Management, majoring in building (surveying), 4 years full time or equivalent

*Holmesglen - Chadstone Campus:*

Bachelor of Building Surveying, 2 years full time

*Victoria University - Newport, Footscray Park and Werribee Campuses:*

Bachelor of Technology (Building Surveying), 4 years full time (first 3 years split between Newport and Footscray Park Campuses, final year split between Footscray Park and Werribee Campuses)

### Additional Information

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

To work as a building surveyor in Victoria you will need to be registered with the Building Commission. There are different levels of registration available, depending on qualifications and experience, which determine the types of buildings you can work on. You may also be able to register as a building inspector upon completion of a Diploma of Building Surveying. See the Building Commission website for more information.

### Employment Opportunities

Most employment opportunities arise in local government bodies - shire, town and city councils. There are some opportunities to apply the skills acquired in this occupation to other jobs in banks and building societies, and in building management companies. Building surveyors



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[www.abbt.com.au](http://www.abbt.com.au)





may become self-employed and subcontract to major building companies.

#### For Further Information

- Australian Institute of Building Surveyors (National Office)  
☎ (02) 9498 1702 ✉ [administration@aibs.com.au](mailto:administration@aibs.com.au)  
🌐 [www.aibs.com.au](http://www.aibs.com.au)
- Building Practitioners Board, Building Commission  
☎ 1300 815 127 ✉ [bpb@buildingcommission.com.au](mailto:bpb@buildingcommission.com.au)  
🌐 [www.buildingcommission.com.au](http://www.buildingcommission.com.au)

#### Related Jobs

Architect (p 70); Architectural Technician (p 71); Bricklayer (p 93); Civil Engineer (p 116); Quantity Surveyor (p 343).

## Bus Driver

Also known as Tour-bus Driver.

Bus drivers transport passengers over established or special routes and on chartered journeys or tours.

Bus drivers may perform the following tasks:

- stop at designated locations to pick up or set down passengers
- adhere to set bus timetables
- open and close doors before and after passengers board or alight
- control lighting, heating and ventilation on buses
- collect fares, give change and issue tickets
- advise passengers on destinations
- use a public address system to provide information or tour commentaries to passengers.

Bus drivers are required to wear uniforms and must be willing to work shifts. Contact with the public is an important part of the work.

#### Specialisations

**Coach Tour Driver** - drives tour buses to tourist sites, or may provide long distance services between towns. Their tasks may include researching routes, planning food and toilet stops, providing a commentary on the history, culture and industry of particular locations, conducting inspections and performing minor maintenance of the coach.

**Charter Services Driver** - drives a group of people (for example, a community club) to a particular destination, where the bus is hired by the group for a fee and individual passengers do not pay fares to the driver.

**School Services Driver** - transports school children to and from home/ school, collect fares or check that travel pass complies with the school route. School services drivers may be required to pass a national Working with Children Check prior to employment.

**Tram Driver** - drives trams over established routes, to transport passengers on urban tramway systems. Their tasks may include operating controls to change the direction of a tram, negotiating traffic, advising passengers on routes and stops, and stopping at set locations to allow passengers to board and alight.

#### Personal Requirements

- courteous and helpful when dealing with the public
- able to pass a company or government medical examination that includes eyesight and colour vision tests
- responsible attitude.

#### Education and Training

You can work as a bus driver without formal qualifications, but employers usually prefer at least Year 10. You will probably get some informal training on the job.

To become a bus driver in Victoria, you need a bus drivers licence endorsement from VicRoads, and a special Driver's Accreditation from the Victorian Taxi Directorate. To obtain this, applicants must be at least 21 years old, hold a current C-class (car) drivers licence for at least 12 months, undergo medical and eyesight tests, and complete a national police clearance with criminal check. Training may be undertaken with an employer, driving school, an experienced heavy vehicle licence holder or by a VicRoads-accredited training and testing provider. Contact VicRoads for further information.

You can also become a bus driver through a traineeship in Transport and Logistics (Road Transport). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

To become a tram driver, you need to have had a full and current C-class drivers licence for at least two years. Minimum age requirements may apply, depending on the employer. Applicants may also have to supply a current National Police Certificate and pass an aptitude or job suitability test. Training is generally provided in-house by the employer.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Bus drivers are employed by scheduled bus, charter and coach services. The majority of work is full time, with some casual, part time and shift work.

#### For Further Information

- Bus Association Victoria ☎ (03) 9645 3300  
✉ [buses@busvic.asn.au](mailto:buses@busvic.asn.au) 🌐 [www.busvic.asn.au](http://www.busvic.asn.au)
- VicRoads - Registration and Licensing Enquiries  
☎ 13 11 71 (Toll Free in VIC) 🌐 [www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au)

#### Related Jobs

Car Driver (p 100); Furniture Removalist (p 197); Truck Driver (p 419).

## Business Equipment Technician

Also known as Business Equipment Serviceperson and Business Machine Mechanic.

Business equipment technicians install, commission, maintain, repair and service computers, document centres, fax machines, photocopiers, cash registers, typewriters and other electronic commercial and office machines. They may also undertake networking of devices.

Business equipment technicians may perform the following tasks:

- carry out regular inspections and maintenance of machines to prevent breakdowns
- refer to manufacturers' service manuals
- talk to machine operators to have faults described
- test machines, make adjustments and repair or replace faulty parts
- find faults in electrical and electronic machines by using special instruments such as voltmeters, resistance meters and oscilloscopes, and repair or replace faulty parts or wiring
- reassemble equipment and test to determine whether it is working properly
- advise users of correct operating methods to prevent breakdowns
- keep accurate records and documentation as required.



Business equipment technicians work in repair workshops or travel to clients' offices. They may need to lift heavy equipment.

#### Specialisation

**Computer Hardware Service Technician** - installs, maintains, adjusts and repairs computer hardware and related equipment such as disk drives, printers, visual display units, CD-ROMs, DVD drives and interfacing equipment.

#### Personal Requirements

- enjoy working with electrical, electronic and mechanical systems
- enjoy solving practical problems
- good hand-eye coordination
- good eyesight (may be corrected) and normal colour vision
- good communication skills
- enjoy customer service
- enjoy working with computers
- attention to detail.

#### Education and Training

To become a business equipment technician you usually have to complete a traineeship in Business Equipment Servicing or Electronics. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Electrotechnology Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Business equipment technicians work for business machine and equipment manufacturing, sales, hire or service firms. They may also work for independent providers of machine maintenance service.

Depending upon the employing company, business equipment technicians may also enter into electronics work or other mechanical servicing occupations. They may also move to the sales side of a business machine company. Promotion to service management and training is possible and technicians may transfer to computer servicing.

#### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Broadcasting Technician (p 94); Electrician (p 160); Electronics and Communications Technician (p 161); Vending Machine Servicer (p 428).

## Business Systems Analyst

Also known as Business Systems Planner.

Business systems analysts study the overall business and information needs of an organisation, in order to develop solutions to business and related technology problems.

A business systems analyst's role is usually undertaken prior to the system design, building and programming stages of the systems development process.

Business systems analysts may perform the following tasks:

- work closely with clients to identify business needs and the costs and benefits of implementing a computing solution
- construct information technology (IT) definitions based on identified needs of the organisation
- work with other IT experts to address networking and hardware needs
- look at finance and budgetary matters
- devise and document a general system design based on the client's anticipated requirements
- negotiate options with the client.

A business systems analyst's role will vary with the size and complexity of the organisation. Some smaller organisations may combine various types of analyst, designer and programmer roles into one, while larger organisations may employ teams of specialists.

#### Personal Requirements

- an interest in computing and ICT
- able to conceptualise and think creatively
- good interpersonal and communication skills
- team leadership capabilities
- able to make informed decisions on a wide range of complex business and technical issues
- able to work independently.

#### Education and Training

To become a business systems analyst you usually have to study information technology, information systems or business systems at university. To get into these courses, you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

Degrees in information technology, information systems and business systems are widely available at universities throughout Victoria. Contact your chosen institution for full details.

#### Additional Information

Membership of the Australian Computer Society is available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

[www.it.monash.edu](http://www.it.monash.edu)



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## Employment Opportunities

With experience and sufficient start-up money, there are opportunities for self-employment, especially on a consultancy basis. Clients are often senior managers responsible for business or functional activities within organisations.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ info@acs.org.au 🌐 www.acs.org.au

### Related Jobs

Accountant (p 47); Analyst (Information Technology) (p 65); Computer Engineer (p 124); Computer Systems Auditor (p 125); Information Technology Administrator (p 227); Information Technology Educator (p 228); Mathematician (p 261).

## Butcher

Also known as Meat Retailer.

Butchers select, cut, trim and prepare meat for sale or supply.

Butchers may perform the following tasks:

- cut, trim and shape standard cuts of meat to size
- process carcasses into primary and secondary cuts
- pack and store products for display and sale
- order supplies from wholesalers using AUS-MEAT Language, as well as weigh and check stock on receipt
- assemble and operate mincers, grinders, mixers, patty-forming or sausage-forming machines, and bandsaws
- use correct detergents and sanitisers to prevent food poisoning and contamination of premises and equipment
- assist clients (including hotels and restaurants) in menu planning, estimating food portions and production costs
- collect payment for sales
- prepare marinated meats, value-added and ready-to-cook dishes
- advise customers about alternative cuts, cooking methods, storage requirements and nutritional aspects of meat.

Butchers work with a variety of knives, hand tools, power equipment (including mincers, mixers and bandsaws) and computer-operated machinery.

Butchers work in shops and boning/slicing rooms. They usually have early morning starts and their work involves a lot of contact with people such as customers and workmates. Butchers are exposed to animal blood.

### Personal Requirements

- enjoy practical and manual work
- physically fit and in good health
- good hand-eye coordination
- good interpersonal skills.

### Education and Training

To become a butcher you usually have to complete an apprenticeship in Meat Processing (Meat Retailing). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Most butchers are employed in small or large retail businesses or supermarkets. Some are self-employed. Butchers also work in wholesale and export businesses where they prepare meat for local

consumption or for export. Qualified butchers may have the opportunity to become involved in other areas of the hospitality and food industries, such as meat and meat products inspection, export and associated services.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 http://agrifoodskills.net.au
- National Meat Industry Training Advisory Council (MINTRAC)  
☎ (02) 9819 6699 or 1800 817 462 (FREECALL)  
✉ mintrac@mintrac.com.au 🌐 www.mintrac.com.au

### Related Jobs

Chef (p 109); Cook (p 130); Meat Processing Worker (p 262); Primary Products Inspector (p 330); Smallgoods Maker (p 373).



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www.mintrac.com.au



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## C

## Cabinetmaker

Cabinetmakers make or repair furniture (both free-standing and fixed) using solid timber, flat-panel or timber-based products; and a wide range of laminates and other materials.

Cabinetmakers may perform the following tasks:

- find out and discuss the requirements of clients
- prepare drawings from specifications or work out job requirements by looking at drawings and specifications
- select and prepare timber and manufactured board
- mark out and cut pieces using hand and power tools
- set up, adjust and operate woodworking machines and equipment including computer numerical controlled (CNC) machinery and nested based manufacturing
- trim and glue joints and fit parts together to form sections of furniture
- place sections in clamps, apply pressure and reinforce joints with nails, dowels and screws
- work with plastic, glass, stone or metals
- assemble sections to form completed articles
- fit hinges, locks, catches, drawers and shelves
- install completed products on site
- repair damaged furniture and cabinets
- make jigs, templates or prototypes for the production of furniture.

Cabinetmakers may specialise in particular areas such as kitchen and bathroom fittings, commercial fittings, bedroom suites, office furniture, dining suites, shop fittings, reproduction of antique furniture and occasional furniture.

### Personal Requirements

- enjoy practical and manual activities
- able to follow written instructions
- able to work to a high level of accuracy
- able to make mathematical calculations



- good communication skills
- good hand-eye coordination
- able to work independently or as part of a team
- free from allergies to dust.

#### Education and Training

To become a cabinetmaker you usually have to complete an apprenticeship in Cabinet Making (Furniture). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Most cabinetmakers are employed by firms that manufacture kitchens and bathrooms, furniture, wooden structural fittings and pre-fabricated wooden components. These firms are often small businesses which make custom-made items or undertake repairs and restoration, or larger factories which mass-produce goods.

Depending on the personal qualities and knowledge of the tradesperson, opportunities are available for promotion to the position of supervisor or manager. With experience, start-up funds and business training, competent cabinetmakers may also establish their own business.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Cabinet Makers Association (Australia) Ltd ☎ 1300 767 738  
✉ [info@cmaaustralia.com.au](mailto:info@cmaaustralia.com.au) ☎ [www.cmaaustralia.com.au](http://www.cmaaustralia.com.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Furnishing Industry (VIC/TAS) Inc ☎ (03) 9856 1600  
✉ [reception@fiaavictas.org.au](mailto:reception@fiaavictas.org.au) ☎ [www.fiaavictas.org.au](http://www.fiaavictas.org.au)

#### Related Jobs

Carpenter (p 105); Cooper (p 131); Furniture Polisher (p 196); Glass and Glazing Tradesperson (p 205); Joiner (p 238); Picture Framer (p 321); Upholsterer (p 422); Wood Machinist (p 439).

## Cable Jointer

Also known as Fibre Optics Cable Splicer, Fibre Optics Jointer and Telecommunications Line and Cable Worker.

Cable jointers make and repair joins in insulated power supply and control cables installed in underground pipes, trenches, and/or overhead systems. They also prepare cable terminations for electrical equipment and overhead lines.

Cable jointers work in the installation and maintenance of underground electrical cables used in transmitting and distributing electricity in city and country areas, new housing estates and industrial centres.

Cable jointers may perform the following tasks:

- pull electrical cables through underground pipes (or conduits) and join cables in transmission and distribution systems
- prepare low- and high-voltage cable joints and cable terminations while connecting and installing electrical equipment and overhead lines
- test and locate cable faults, and maintain and repair cables
- update location diagrams for the layout of cable systems
- make sure that conductors are correctly connected between sub-stations and customers' premises when installing and making repairs

- assist in manufacturing and preparing cable jointing components
- dig trenches and service pits or tunnels
- encase cables in protective covers
- work with other staff in installing or replacing cables.

Cable jointers mainly work outdoors, sometimes in cramped and confined conditions or at heights. They often work in sub-stations, which reduce high-voltage electricity to lower levels for consumer use. They need to maintain good relations with property owners, tenants and authorities. Cable jointers often work as part of a team.

#### Personal Requirements

- enjoy practical work
- normal eyesight, colour vision and physical fitness
- good hand-eye coordination
- safety-conscious
- able to work at heights
- communication skills.

#### Education and Training

To become a cable jointer you usually have to complete an apprenticeship in Cable Jointing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

You may be required to get a licence or register to work in this occupation.

#### Employment Opportunities

Most cable jointers work for electricity corporations or private subcontractors on underground electricity distribution and service cables. Work is carried out in cities, suburbs, large industrial centres and country towns. Cable jointers may be responsible for work in a particular area or district. Occasionally, cable jointers working for electricity authorities are required to work away from home for periods of time.

#### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Telstra Switchboard ☎ 1300 368 387 (Toll Free)  
✉ [telstra.careers@team.telstra.com](mailto:telstra.careers@team.telstra.com)  
☎ <http://careers.telstra.com>
- Energy Safe Victoria ☎ (03) 9203 9700  
✉ [careers@esv.vic.gov.au](mailto:careers@esv.vic.gov.au) ☎ [www.esv.vic.gov.au](http://www.esv.vic.gov.au)

#### Related Jobs

Electrical Engineer (p 156); Electrical Linesperson (p 158); Electrician (p 160); Telecommunications Technician (p 400).

## Car Driver

Also known as Driver, Hire Car Driver and Limousine Driver.

Car drivers transport passengers to their destinations.

Car drivers may perform the following tasks:

- use mobile computer systems and radio networks to log into waiting passenger information
- pick up passengers at designated locations or when hailed, and transport them to their desired destinations
- check passenger destinations and determine the most appropriate route



- receive money or credit payments for fares and give change
- assist passengers with the handling of luggage
- keep accurate records of driver shifts, income and expenses
- arrange regular repairs, general maintenance and cleaning of vehicles.

#### Specialisations

**Chauffeur/Hire Car Driver** - drives motor cars to transport personnel and visitors on behalf of hire-car companies, business, government or other organisations. Some families employ a chauffeur and this work usually entails other duties such as running errands. When driving dignitaries, chauffeurs/hire car drivers must be aware of security.

**Taxi Driver** - drives cars licensed as taxis to transport passengers for a fare that is calculated on a taxi meter. Taxi drivers usually work shifts involving day, evening and weekend work. Taxi drivers have constant contact with the public. They must provide a service that meets the standards of government regulatory authorities and the taxi network for which they drive.

#### Personal Requirements

- able to gain a high level of driving skill
- able to meet age limits
- able to work long or irregular hours
- good communication skills
- able to remain calm in difficult situations
- good standard of personal grooming and dress.

#### Education and Training

You can work as a car driver without formal qualifications but you will need to obtain a specific licence.

To become a taxi or hire car driver in the metropolitan area, you must hold a Victorian Taxi Drivers Certificate. This certificate is obtained by passing a test administered by a Victorian Taxi Directorate authorised tester. Compulsory training is provided for applicants to this test.

The course is delivered at Taxi Industry Training Victoria, Driver Education Centre of Australia, Cabways, Technical Advanced Training and Yellow Cabs (Vic) Pty Ltd. Contact the relevant organisation for more information. See the Useful addresses section for contact details.

#### Additional Information

Before applying for either a taxi or hire car licence you will need to supply a national police certificate, undergo a medical test, and have held an unrestricted Australian drivers licence for 12 months. If you have held an open drivers licence for less than 12 months, you will need to undergo an independent driving assessment. Upon successful application, you must meet literacy and numeracy requirements prior to enrolling in the course in Taxi Driving. You may be required to pass a Working with Children check. Minimum age requirements may also apply.

#### Employment Opportunities

Chauffeurs/hire car drivers work for government departments, hotels and private hire car companies. Self-employed chauffeur/hire car drivers are often subcontracted to private companies.

Taxi drivers work for taxi companies or for themselves. Most taxi owners drive their own taxis and have drivers who drive the other available shifts. Taxi drivers usually pay the taxi owner a rental, which is calculated as a percentage of the fares received.

The demand for taxi services varies at different times of the day and throughout the year.

#### For Further Information

- Transport and Logistics Industry Skills Council  
☎ www.tlisc.com.au
- Victorian Taxi Association ☎ (03) 9676 2635  
✉ admin@victaxi.com.au ☎ www.victaxi.com.au
- Victorian Taxi Directorate ☎ (03) 9320 4300  
☎ www.taxi.vic.gov.au

#### Related Jobs

Bus Driver (p 97); Delivery Driver (p 142); Furniture Removalist (p 197); Truck Driver (p 419).

## Car Park Attendant

Car park attendants direct drivers to parking positions, collect parking fees from customers and make sure cars are safe from theft and damage.

Car park attendants may perform the following tasks:

- move cars within parking areas
- issue tickets at time of arrival
- collect parking fees from customers
- use a cash register
- open and close gates to allow entry to and exit from parking areas
- load and carry out minor maintenance on ticket/payment machines
- clean up spills and broken glass
- count money at the end of the day.

Some car park attendants work under cover in large multistorey or basement car parks, but many work outside in all weather conditions. Car park attendants must be prepared to work in the evenings and on weekends and public holidays.

In a small car park, the car park attendant may work alone.

#### Specialisation

**Valet Driver** - drives cars for customers or guests at particular venues, such as hotels and restaurants, to a supervised parking area, and returns vehicles to guests when they are ready to leave the venue.

#### Personal Requirements

- integrity and reliability
- a pleasant manner when dealing with the public
- reasonably fit
- capable of handling money
- good driving skills (to work as a valet driver).

#### Education and Training

You can work as a car park attendant without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job.

#### Additional Information

You will need an unrestricted, valid and current drivers licence to work as a valet driver. A police clearance and traffic history check may also be required. You may also need a drivers licence to work as a car park attendant.

#### Employment Opportunities

Car park attendants are employed in public and private car parks, by hotels, airports and shopping centres. Opportunities for promotion are limited, but an attendant could advance to supervisory levels. Previous experience in a professional driving or car rental role may be advantageous when applying for a valet driving role.

#### For Further Information

Contact your local car park operator for more information about this occupation.



- Parking Association of Australia Inc ☎ (02) 9431 8646  
✉ paa@parking.asn.au 🌐 www.parking.asn.au

#### Related Jobs

Service Station Attendant (p 366).

## Car Rental Officer

Also known as Rental Service Officer and Vehicle Rental Consultant.

Car rental officers collect and deliver cars to customers, deal with rental enquiries, bookings and telephone calls, and carry out clerical work.

Car rental officers may perform the following tasks:

- receive enquiries from the public either in person or by telephone, take bookings and inform customers of the rental rates charged
- book customers by entering details such as type of car, rental period and journey planned into a computer or onto the appropriate form
- check customers' identification and drivers licences, draw up rental contracts and process payments using a computer system
- arrange for cars to be ready for customers at the rental office or delivered to their hotels or places of business
- explain the controls of the rental cars to customers and provide them with directions and tourist information when necessary
- check returned cars to log kilometres travelled and for any damage, and enter details on computer and present final accounts to customers
- receive payment if necessary and/or return customers' prepayment
- note any car problems encountered by customers and follow up with appropriate action
- process overdue vehicles and collect additional payment
- arrange for cars to be cleaned and refuelled, ready for the next customer
- collate all transactions into a daily report and balance cash and till.

With experience and sometimes further training, promotion to supervisor/branch manager is possible.

Car rental officers are usually required to work shifts, including weekends, especially at airports. At peak times they are required to work quickly and efficiently under stressful conditions. They have a considerable amount of contact with the public. Uniforms are often provided.

#### Personal Requirements

- customer focus and good communication skills
- able to work under pressure and with minimum supervision
- able to demonstrate initiative, good judgment and problem-solving skills.

#### Education and Training

You can work as a car rental officer without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

You can also become a car rental officer through a traineeship in Automotive Administration. Entry requirements may vary, but employers generally require Year 10 and sometimes prefer your VCE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair or Business Services Training Packages that will expand your

career opportunities within this industry. See the Learning Pathways section for more information.

A car rental officer needs a drivers licence and a good driving record.

#### Employment Opportunities

Car rental officers are mainly employed in cities and larger regional centres. Employers tend to choose people with related experience in customer services industries.

Employment prospects can depend on the number of tourists and business people visiting an area. Competition for management positions is strong.

Other factors affecting employment prospects are the level of motor vehicle use, the amount of leisure time people have, the availability and usage of other forms of transport such as rail, air and sea, and the use of public transport.

#### For Further Information

- Avis Australia (Head Office - Sydney) ☎ (02) 9353 9033  
🌐 www.avis.com.au
- Budget Rent A Car, Head Office ☎ (02) 9578 1000  
🌐 www.budget.com.au
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ vacc@vacc.com.au 🌐 www.vacc.com.au

#### Related Jobs

Car Wash Attendant (p 102); Sales Assistant (p 358); Service Station Attendant (p 366).

## Car Wash Attendant

Car wash attendants wash, scrub and polish the interiors and exteriors of cars, buses and trucks to protect their appearance.

Car wash attendants may perform the following tasks:

- vacuum, clean and maintain vehicle interiors, including dashboards, consoles, carpet and car seats
- clean door trims and hinges
- wash and polish vehicle exteriors and blacken tyres
- drive vehicles through automatic car washes.

#### Specialisation

**Vehicle Detailer** - undertakes the tasks of a car wash attendant, and also cleans engines and underbodies, treating them with rust-proofing chemicals. They also repair rusting and make minor repairs to scratched paintwork.

#### Personal Requirements

- enjoy practical work
- an eye for detail
- able to work without supervision
- physically fit.

#### Education and Training

You can work as a car wash attendant without formal qualifications. You will probably get some informal training on the job.

You can also become a car wash attendant through a traineeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

You are usually required to have a drivers licence to be a car wash attendant.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and



Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Car wash attendants are employed in car dealerships (new and used), service stations, vehicle rental firms, bus and truck depots and car wash and detailing businesses. Opportunities are also available for self-employment.

#### For Further Information

- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Car Rental Officer (p 102); Cleaner (p 119); Service Station Attendant (p 366).

## Caravan Park Attendant

Caravan park attendants work in caravan parks where they carry out day-to-day housekeeping, maintenance and office/reception duties.

Caravan park attendants may perform the following tasks:

- undertake housekeeping and cleaning of caravans, cabins and on-site accommodation
- undertake housekeeping and cleaning of amenities blocks and other facilities
- take bookings and reservations
- greet and farewell guests and receive payments
- maintain grounds, pools, gardens and sites of the park
- conduct maintenance tasks such as painting and minor repairs
- help in park shops, cafes and other facilities
- provide guests with information on local tourist attractions and facilities
- calculate guests' bills and issue receipts upon payment
- run leisure and tourism activities.

Caravan park attendants usually work shifts and may be required to work weekends, public holidays and long hours during busy periods. Some of the work is outdoors and the work must be done in all kinds of weather.

With experience and sometimes further training, caravan park attendants may progress to managerial positions or find work at tourist attractions, resorts or in the horticulture industry.

#### Personal Requirements

- friendly, helpful and patient
- able to work as part of a team
- enjoy practical and manual work
- willing to undertake a variety of tasks
- able to work outdoors in varied weather conditions
- able to work long and varied hours
- knowledge of local area and tourist information.

#### Education and Training

You can work as a caravan park attendant without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses below usually requires Year 10. Entry to the diploma courses usually requires Year 12. As subjects can vary between institutions, you should contact the institutions you are interested in for full details.

You can also become a caravan park attendant through a traineeship in Caravan Park Operations or Holiday Parks and Resorts. Entry

requirements may vary, but employers generally require Year 10 or relevant experience in the industry. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

##### GippsTAFE - Morwell Campus:

- Certificate II in Caravan Park Operations
- Certificate III in Caravan Park Operations

##### East Gippsland Institute of TAFE - Bairnsdale and Sale, Fulham Campuses:

- Certificate II in Caravan Park Operations
- Certificate III in Caravan Park Operations

##### South West Institute of TAFE - Warrnambool Campus:

- Certificate II in Caravan Park Operations
- Certificate III in Caravan Park Operations

##### Wodonga TAFE - Wodonga Campus:

- Certificate II in Caravan Park Operations
- Certificate III in Caravan Park Operations

#### Diploma Courses

##### East Gippsland Institute of TAFE - Bairnsdale and Sale, Fulham Campuses:

- Diploma of Caravan Park Attendant

##### Wodonga TAFE - Wodonga Campus:

- Diploma of Caravan Park Attendant

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Caravan Industry and Tourism, Hospitality and Events Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Caravan park attendants are employed at caravan parks and camping grounds throughout Victoria.

Caravan parks and camping grounds are often privately owned, although some are owned by local councils or part of larger businesses. Employment opportunities are influenced by the level of tourism activity in the local areas and can be seasonal.

#### For Further Information

- Caravan, RV and Accommodation Industry of Australia Ltd  
☎ (07) 3262 6566 ✉ [info@crva.com.au](mailto:info@crva.com.au)  
🌐 [www.welovethiscountry.com.au](http://www.welovethiscountry.com.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Tourism Training Australia ☎ (02) 9286 3944  
✉ [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
🌐 [www.tourismtraining.com.au](http://www.tourismtraining.com.au)
- Victorian Caravan Parks Association (VicParks)  
☎ (03) 9328 3280 ✉ [admin@vicparks.com.au](mailto:admin@vicparks.com.au)  
🌐 [www.vicparks.com.au](http://www.vicparks.com.au)

#### Related Jobs

Handyperson (p 209); Hotel and Motel Front Office Attendant (p 218); Room Attendant (p 356).

## Cardiac Technologist

Also known as Cardiac Scientist, Cardiac Technician and Clinical Measurement Technician.

Cardiac technologists provide technical services for the investigation, diagnosis and treatment of heart disease.



As part of the cardiology team, cardiac technologists operate a range of specialist equipment which provides data that cardiologists and other medical practitioners use for patient care.

Cardiac technologists may perform the following tasks:

- electrocardiography (ECG) - recording the electrical activity of the heart, from which the heart rate is measured and its pattern and rhythm are interpreted
- ambulatory monitoring - fitting a portable ECG monitor to record the ECG over a 24-hour period, and replaying and analysing the tape on a computerised system
- exercise ECG stress testing - assessing a patient's cardiac response to exercise using a treadmill or stationary bicycle and ECG recording
- pacemaker implant testing - testing and, if necessary, reprogramming implanted cardiac pacemakers with computerised equipment
- cardiac catheterisation - monitoring and recording ECG and blood pressure data during interventional procedures
- electrophysiology studies - using computerised systems to record ECG data from within the heart in order to diagnose and treat abnormal heart rhythms
- echocardiography - operating ultrasound equipment to scan the heart from the chest wall, obtaining and measuring images of the heart to assess blood flow and valve abnormalities
- cardiac research - studying the effects of cardiovascular drugs and diseases using many of the above techniques.

Cardiac technologists may be required to be on call.

#### Personal Requirements

- careful and analytical approach to work
- sympathetic, supportive and professional approach to patients
- ability to follow safety guidelines
- good communication skills
- commitment to ongoing professional development
- able to work as part of a team.

#### Education and Training

To become a cardiac technologist you usually have to complete a degree with a major in biophysics, physiology or exercise physiology. Once you are employed you will receive some on-the-job training and may be required to undertake further study.

You can also become a cardiac technologist by completing a bachelor degree in science, applied science, health science or nursing, followed by postgraduate training in cardiac technology. This training is currently offered by Mayfield Education in Victoria.

To get into the degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Contact your chosen institution for more information as requirements may change.

Most universities in Victoria offer bachelor degrees with majors in biophysics, physiology or exercise physiology. Contact your preferred institution for full details.

#### Additional Information

Cardiac technologists performing echocardiograms need to be accredited with the Australian Sonographer Accreditation Registry. Visit the website at [www.asar.com.au](http://www.asar.com.au) for more information on accreditation requirements.

#### Employment Opportunities

All large metropolitan and regional public and private hospitals have cardiac investigation units and there is growth in the private sector particularly for cardiac ultrasound. Training opportunities and position

grading vary between states and between institutions. Demand for cardiac technologists depends on the incidence of heart diseases and the level of government funding.

#### For Further Information

- Association of Cardiac Technologists ☎ [www.activinc.org.au](http://www.activinc.org.au)
- Cardiac Society of Australia ☎ [www.csanz.edu.au](http://www.csanz.edu.au)
- Victorian Health Department ☎ [www.health.vic.gov.au](http://www.health.vic.gov.au)

#### Related Jobs

Medical Imaging Technologist (p 267); Medical Scientist (p 270); Nuclear Medicine Technologist (p 294); Radiation Therapist (p 343).

## Career Adviser

Also known as Career Development Practitioner, School Counsellor and Student Counsellor.

Career advisers help people of all ages to manage their careers by providing information and assistance on a wide range of matters such as career planning, personal development and looking for work.

Career advisers may perform the following tasks:

- use various assessment tools to help people identify their interests, skills, aptitudes and abilities, work and lifestyle preferences, and relate them to the world of work
- counsel students and their parents on education and career options, behaviour, truancy and other common issues for young people
- develop education and training programs
- help students find work experience placements
- help clients with job-searching strategies, writing résumés and applications, and developing interview skills and career portfolios
- market clients to potential employers
- assist clients to balance work with family needs
- help clients navigate career transitions
- provide an information and referral service on education, training and employment opportunities
- consult with teachers, community groups, government agencies, businesses and medical practitioners
- prepare reports and maintain client records
- undertake research in areas relevant to their professional roles.

Career advisers working in schools may deliver a support service to school principals, teachers, students and families, particularly in cases where there are difficulties managing students' learning, behavioural or emotional problems. They may consult with other agencies, accepting and passing on referrals where necessary.

#### Specialisation

**School Psychologist** - develops psychological techniques to foster the development and skills of individuals and groups in educational settings. They may also undertake educational and psychological assessments and diagnosis of students.

#### Personal Requirements

- able to motivate and inspire people
- able to relate to young people
- good communication skills
- aptitude for counselling
- tact.

#### Education and Training

To become a career adviser you usually have to complete a bachelor degree in an area such as counselling, education, human resources or psychology, followed by a postgraduate qualification in career



development, or in educational, developmental or counselling psychology.

To work as a school psychologist you usually need to be a qualified psychologist. See the entry for Psychologist for education and training information.

Most universities in Victoria offer relevant bachelor degrees. To get into these courses you usually need to gain your VCE. Contact your preferred institution for further details.

#### Additional Information

To work in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

#### Employment Opportunities

Career advisers may work with students in schools and other educational institutions or in private practice with all members of the public. Career advisers and school psychologists are employed by state and territory education authorities, independent schools and colleges and other educational or training organisations. There are limited openings and competition for available places is strong.

#### For Further Information

- Career Development Association of Australia ☎ 1800 222 390 (FREECALL) ✉ info@cdaa.org.au 🌐 www.cdaa.org.au
- The Australian Psychological Society Ltd ☎ (03) 8662 3300 or 1800 333 497 (FREECALL) ✉ contactus@psychology.org.au 🌐 www.psychology.org.au
- Department of Education and Early Childhood Development ☎ (03) 9637 2376 ✉ newton.mark.m@edumail.vic.gov.au 🌐 www.education.vic.gov.au

#### Related Jobs

Counsellor (p 133); Psychologist (p 337); Teacher - Secondary (p 397); Teacher - Special Education (p 398).

## Carpenter

Carpenters construct, erect, install, finish and repair wooden and metal structures and fixtures on residential and commercial buildings. Some carpenters may also carry out work on large concrete, steel and timber structures such as bridges, dams, power stations and civil engineering projects.

Carpenters may perform the following tasks:

- construct formwork into which concrete is poured
- set out an outline of the building on the ground of the site, using string and pegs to allow for excavations
- build floors, wall frameworks (timber or metal) and roofs, and lay timber floors
- read plans and specifications to determine the dimensions, materials required and installation processes
- install metal and timber windows, sashes and doors
- construct and erect prefabricated units, such as cottages and houses
- cut materials with hand and power tools and assemble, or nail, cut and shape parts
- install door handles, locks, hardware, flooring underlay, insulating material and other fixtures
- maintain and sharpen tools.

With further training and experience, a carpenter could become a building supervisor, building or construction manager, building inspector, technical teacher, estimator, building contract administrator or purchasing officer.

#### Personal Requirements

- enjoy practical work
- able to work with your hands
- good sense of balance and ability to work at heights
- good at mathematics
- good health and eyesight
- able to work as part of a team.

#### Education and Training

To become a carpenter you usually have to complete an apprenticeship in Carpentry. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

In Victoria, carpenters must either be accredited as, or work under the supervision of a registered building practitioner. Contact the Victorian Building Commission (www.buildingcommission.com.au) for more information.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

#### Employment Opportunities

Carpenters may work as subcontractors or may be employed by building and construction companies. The majority of carpenters are employed on housing projects, construction and civil engineering projects, and for maintenance in large factories, hospitals, institutions and private homes. Many carpenters specialise in areas such as framing, fixing or formwork.

#### For Further Information

- Construction and Property Services Industry Skills Council ☎ (02) 6253 0002 ✉ info@cpsisc.com.au 🌐 www.cpsisc.com.au
- Housing Industry Association (VIC) ☎ (03) 9280 8200 ✉ vic\_enquiry@hia.com.au 🌐 http://hia.com.au
- Master Builders Association of Victoria ☎ (03) 9411 4555 ✉ mbassist@mbav.com.au 🌐 www.mbav.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562 ✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

#### Related Jobs

Army Soldier - Technician (p 74); Bricklayer (p 93); Cabinetmaker (p 99); Cooper (p 131); Glass and Glazing Tradesperson (p 205); Home Improvement Installer (p 213); Joiner (p 238); Plumber (p 324); Roofer (p 356); Stonemason (p 385); Wood Machinist (p 439).

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## Cartographer ✱

Also known as Land Information Officer, Mapping Scientist, Spatial Information Scientist and Map Maker.

Cartographers design, prepare and revise maps, charts, plans, three-dimensional models and spatial information databases, often using computer-based techniques, and applying principles from science, mathematics and graphic design.

Spatial information refers to information about the geographical relationship between places, people and other items within a particular area.

Cartographers may perform the following tasks:

- produce paper maps and web-delivered electronic maps using desktop publishing, computer graphics and multimedia software
- take part in the design and management of geographical information systems (GIS)
- design and produce interactive mapping products for use on computer systems and the web
- supervise and coordinate the work of cartographic technicians and other production team members
- produce digital topographic and thematic data for use in geographical databases
- analyse and interpret information from a range of sources (including surveyors' notes, aerial photographs, remote sensing satellite imagery and existing maps and records) and prepare reports
- advise other professionals on the data requirements for map production and on the artistic, technical and economic aspects of map making.

Cartographers may specialise in topographical maps (which show earth surface features and land use) or maps used for operational purposes in fields such as town planning, weather forecasting, tourism, hydrography, geological or mineral exploration and the military. Cartographers may also take part in the development of geographical information systems, including the processing, storage, presentation and analysis of data within those systems.

Cartographers may have to travel to collect information. They may be required to liaise with clients, government officials and industry.

### Personal Requirements

- enjoy design and computer graphics
- enjoy geography
- able to work neatly and accurately, paying attention to detail
- good at mathematics and science
- able to work as part of a team.

### Education and Training

To become a cartographer you usually have to complete a diploma or advanced diploma in spatial science. However, entry to this occupation may be improved if you have a relevant degree. Entry to the diploma course below usually requires Year 12. Entry to the advanced diploma course usually requires completion of the diploma. To get into the degree courses you usually need to gain your VCE with prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, biology, chemistry and physics. Contact the institutions you are interested in for more information as requirements may change.

#### Diploma Courses

*RMIT University (TAFE Division) - City Campus:*

Diploma of Spatial Information Services

Advanced Diploma of Spatial Information Services

*South West Institute of TAFE - Warrnambool Campus and Distance Education:*

Diploma of Spatial Information Services

#### Degree Courses

*RMIT University - City Campus:*

Bachelor of Science (Geospatial Science), majoring in cartography, 4 years full time or equivalent

Bachelor of Applied Science (Surveying), majoring in cartography, 4 years full time or equivalent

Bachelor of Environmental Science, majoring in geographic information systems, 3 years full time or equivalent

*University of Melbourne - Parkville Campus:*

Bachelor of Environments, majoring in geomatics, 3 years full time or equivalent

Bachelor of Science, majoring in geomatics, 3 years full time or equivalent

### Employment Opportunities

Cartographers work in many fields. Employment opportunities exist with tourist guide and street directory publishers, demographic marketing consultants, mining exploration companies, road mapping bodies, conservation authorities, emergency services, state or territory and federal topographical and geological mapping authorities, local councils, hydrographic charting offices, planning authorities, university departments and scientific research organisations and defence.

Some cartographers are self-employed, or employed by private companies, performing contract work for the above organisations.

The increasing use of computerised geographic information systems means an increased demand for cartographers.

### For Further Information

- Mapping Sciences Institute, Australia (National Office)  
✉ [msiau@gil.com.au](mailto:msiau@gil.com.au) 🌐 [www.mappingsciences.org.au](http://www.mappingsciences.org.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ [support@sssi.org.au](mailto:support@sssi.org.au)  
🌐 [www.spatialsciences.org.au](http://www.spatialsciences.org.au)

### Related Jobs

Cartographic Technician (p 106); Geographer (p 200); Geographic Information Systems Officer (p 201); Hydrographer (p 220); Industrial Engineering Technologist (p 225); Surveyor (p 389).

## Cartographic Technician ✱

Cartographic technicians assist cartographers with the analysis of field survey and land management data, aerial photographs and other geographic information sources to prepare maps, plans, charts and diagrams.

Cartographic technicians may perform the following tasks:

- fit data into required mapping formats, using a variety of methods
- prepare, edit and revise plans, maps, charts and other drawings, manually or on computers
- prepare finished material for reproduction and publication.

Cartographic technicians may specialise in topographic maps, which display natural features and relief of land; cadastral maps, which show boundaries of owned land and properties; or thematic maps relating to geographic features.



### Personal Requirements

- graphic skills, with an interest in drawing and design
- interested in working with computers
- able to work neatly and accurately
- normal colour vision.

### Education and Training

To become a cartographic technician you usually have to complete a diploma or advanced diploma in spatial information services. Entry to the diploma courses below usually requires Year 12. As subjects can vary you should contact the institution you are interested in for full details.

#### Diploma Courses

**RMIT University (TAFE Division) - City Campus:**

Diploma of Spatial Information Services

Advanced Diploma of Spatial Information Services (entry via diploma)

**South West Institute of TAFE - Warrnambool Campus:**

Diploma of Spatial Information Services

### Employment Opportunities

Opportunities exist for graduates to work in the public and private sectors. Employers include mapping and geographic information agencies, mineral exploration, mining, planning and development companies, and city, town and shire councils. Cartographic technicians usually work as part of a team with other professionals and associates.

Some cartographic technicians upgrade their qualifications by completing a degree to become cartographers. There is an increasing trend for cartographic technicians to be self-employed contractors.

### For Further Information

- Mapping Sciences Institute, Australia (National Office)  
✉ [msiau@gil.com.au](mailto:msiau@gil.com.au) 🌐 [www.mappingsciences.org.au](http://www.mappingsciences.org.au)
- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ [support@sssi.org.au](mailto:support@sssi.org.au)  
🌐 [www.spatialsciences.org.au](http://www.spatialsciences.org.au)

### Related Jobs

Architectural Technician (p 71); Cartographer (p 106); Geographer (p 200); Industrial Engineering Technologist (p 225); Surveying Technician (p 388); Surveyor (p 389).

## Cashier

Also known as Checkout Operator.

Cashiers receive cash, cheques or credit/debit card payments, record these payments using cash registers or electronic equipment, and provide change to customers.

Cashiers may perform the following tasks:

- receive goods selected by the customer and operate cash registers
- talk with other staff where there is doubt about a particular price
- receive payment for goods from customers and provide change as shown by the electronic cash register
- weigh, wrap or pack goods and remove price tags and special security tabs
- help customers find products in the store
- price items with a price gun and rotate stock by bringing the old stock forward on the shelves during quieter times
- process payment for accounts such as telephone or electricity bills and issue receipts

- work out totals for cash and other takings at the end of each working day
- count and prepare money for deposit in a bank or building society
- keep records of amounts received and paid, and regularly check the cash balance against this record
- operate automatic ticket-issuing machines and other computerised equipment.

Shift work and irregular hours may be involved. Most cashiers are employed on a part-time or casual basis.

With experience, cashiers may move into clerical, accounts or sales areas, or into supervision.

### Specialisations

**Office Cashier** - receives and banks takings and makes payments in an office. In addition to receiving payments from customers, they may prepare wages or arrange for electronic transfer of funds, count and record monies received, balance takings against register sales records and produce periodic sales reports.

**Service Station Cashier** - receives payments by cash, cheque and credit/debit cards for petrol and other merchandise at service stations, balances takings against register sales records and gives basic assistance and advice to customers.

### Personal Requirements

- enjoy clerical and administrative tasks
- able to work quickly and accurately
- confidence in handling money
- good communication skills
- good customer service skills.

### Education and Training

You can work as a cashier without formal qualifications. You will probably get some informal training on the job.

You can also become a cashier through a traineeship in Retail Services or Automotive Sales. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Retail or Automotive Retail, Service and Repair Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Cashiers work in department stores, supermarkets, variety stores and related establishments in city and country locations.

### For Further Information

- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Australian Retailers Association (National Office) ☎ 1300 368 041  
✉ [info@retail.org.au](mailto:info@retail.org.au) 🌐 [www.retail.org.au](http://www.retail.org.au)
- National Retail Association ☎ 1800 738 245 ✉ [info@nra.net.au](mailto:info@nra.net.au)  
🌐 [www.nra.net.au](http://www.nra.net.au)

### Related Jobs

Bank Officer (p 83); Bookmaker (p 91); Clerical Officer - Local Government (p 120); Newsagent (p 293); Postal Employee (p 329); Sales Assistant (p 358).



## Caterer

Also known as Catering Officer.

Caterers organise and control the operations of establishments involved in catering and dining, such as restaurants, cafes, cafeterias and canteens.

Caterers may perform the following tasks:

- discuss catering arrangements with clients
- talk with the chef to plan the menu
- supervise the purchase and storage of food
- supervise provision of all crockery, cutlery, detergents and kitchenware
- make sure there is adequate security for food and equipment
- keep records of payments and expenses
- plan, coordinate and supervise the activities of workers in dining rooms, kitchens, bars and other areas
- manage staff hiring, training and rostering
- make sure that the dining rooms, kitchen, storage facilities and other work areas are kept clean and conform to the health regulations
- attend to complaints concerning food and service.

### Specialisation

**Hospital Food Service Manager** - plans menus with a dietitian for patients and staff to make sure that meals are nutritious, varied, attractive and suit the specific needs of individuals. They also direct and control the purchasing, preparation and presentation of food for the public and private wards and staff cafeterias, with the assistance of the head cook or chef and assistant catering officers.

### Personal Requirements

- good communication and organisational skills
- able to remain calm and in control in difficult situations
- able to work as part of a team.

### Education and Training

You can work as a caterer without formal qualifications. Skills are usually learnt on the job through experience in the hospitality industry. However, entry to this occupation may be improved if you have a qualification in a relevant area such as hospitality management.

Entry to the certificate, diploma and advanced diploma courses below usually requires completion of Year 10.

You can also become a caterer through a traineeship in Hospitality (Catering Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**TAFE Victoria - various locations:**

Certificate III in Hospitality

Certificate IV in Hospitality

### Diploma Courses

**TAFE Victoria - various locations:**

Diploma of Hospitality

Advanced Diploma of Hospitality

### Employment Opportunities

Caterers work in large hotels, hospitals, schools, catering firms, department stores and other retail outlets. They also work in industrial and defence centre canteens, restaurants, licensed clubs and casinos. Self-employment is possible.

Positions tend to be filled by promoting an experienced person from within the organisation. People who intend to run their own business

are advised to gain experience, both on the job and by studying an appropriate course.

### For Further Information

- Australian Chamber of Commerce and Industry  
☎ [www.acci.asn.au](http://www.acci.asn.au)
- Service Skills Australia ☎ [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Tourism Training Australia ☎ (02) 9286 3944  
✉ [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
☎ [www.tourismtraining.com.au](http://www.tourismtraining.com.au)

### Related Jobs

Chef (p 109); Cook (p 130); Events Coordinator (p 170); Ship's Catering Attendant (p 369).

## Cheesemaker

Cheesemakers make and supervise the making of cheese.

Cheesemakers may perform the following tasks:

- operate a wide range of mechanised equipment, often from a sophisticated control room
- monitor the production of cheese using process control and recording systems
- supervise and carry out the cleaning, sanitation and preparation of equipment.

In small factories which use traditional methods, there is a lot of skilled manual work. Cheesemakers are often required to work shifts.

### Personal Requirements

- enjoy practical and manual work
- high standard of personal hygiene
- able to supervise other workers
- good communication skills.

### Education and Training

To become a cheesemaker you usually have to complete a traineeship in Food Processing. Entry requirements may vary, but employers generally require at least Year 10, some prefer Year 12.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Cheesemakers work in cheesemaking factories, usually located in regional dairy areas. However, some small factories are located in outer metropolitan suburbs. Opportunities may exist for self-employment, usually in small, boutique cheesemaking establishments.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
☎ <http://agrifoodskills.net.au>
- National Centre for Dairy Education Australia ☎ 1300 062 332  
☎ [www.ncdea.edu.au](http://www.ncdea.edu.au)
- The People in Dairy ☎ (03) 9620 7283  
☎ [www.thepeopleindairy.org.au](http://www.thepeopleindairy.org.au)

### Related Jobs

Food Process Worker (p 188).



## Chef

Chefs plan and organise the preparation and cooking of food in a number of settings.

Chefs may perform the following tasks:

- plan menus and work out food and labour costs
- plan staff rosters and supervise the activities of cooks and assistants
- discuss food preparation issues with managers, dietitians and other staff members
- order food, kitchen supplies and equipment
- demonstrate techniques to cooks and advise on cooking procedures
- prepare and cook food
- divide food into portions and add gravies, sauces and garnishes
- explain and enforce hygiene regulations
- select and train staff
- freeze and preserve foods.

In larger establishments, the chef de cuisine or head chef generally does more supervision than cooking. Senior chefs have to attend staff meetings, where they discuss problems related to their areas, and receive or issue instructions to other managerial staff. In small restaurants, the head chef may prepare food, assisted by other cooks or apprentices. As well as expert cooking knowledge, chefs involved in supervision need a general knowledge of the skills and activities of all their workers.

The range of duties carried out by chefs will vary depending on where they work. Chefs may be required to work shifts, including weekends and public holidays. The work may be stressful, especially at peak hours of the day.

### Specialisations

**Chef de Cuisine** - is the head or first chef.

**Chef de Partie** - may specialise as a larder cook, butcher, pastry cook, sauce cook, roast cook, relief cook, side-dish cook, breakfast cook, canteen cook or fish cook.

**Commis Chef** - is a cook who has just completed an apprenticeship or has an equivalent qualification.

**Demi Chef de Partie** - is the second in charge of a particular section of the kitchen.

**Sous Chef/Second Chef** - is the second-in-charge in the kitchen.

### Personal Requirements

- high level of personal cleanliness
- enjoy cooking
- able to organise efficient work schedules
- good communication skills
- punctuality
- flexibility to perform shift work on a 24-hour rotating roster as required
- able to work under pressure and stay calm in difficult situations.

### Education and Training

To become a chef you usually have to complete an apprenticeship in Hospitality (Commercial Cookery). Entry requirements may vary, but employers usually require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Although both chefs and cooks complete an apprenticeship at the certificate III level initially, chefs are generally required to gain further skills at the certificate IV level and above.

### Employment Opportunities

Chefs are employed in hotels, motels, restaurants, clubs, cafes, cafeterias, hospitals, flight catering centres, seagoing vessels and food processing factories. Chefs with sufficient start-up money may become the owners of restaurants. The majority of chefs work in capital cities and in large country centres, particularly in areas where there are tourist resorts.

Expanded tourism has increased demand for highly skilled chefs, particularly in establishments of international standard. In large kitchens the progression is usually from commis chef, to chef de partie, to sous chef, to head chef, to executive chef or food manager. Movement between employers within the industry may be required in order to gain experience and promotion.

### For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ aha@aha.org.au 🌐 www.aha.org.au
- Service Skills Australia 🌐 www.serviceskills.com.au
- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au

### Related Jobs

Baker (p 83); Butcher (p 99); Caterer (p 108); Cook (p 130); Pastrycook (p 311); Smallgoods Maker (p 373).

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## Chemical Engineer ✱

Chemical engineers design and coordinate the construction and operation of manufacturing facilities and processes which convert raw materials into everyday products such as petrol, toothpaste, pharmaceuticals and plastics.

Chemical engineers may perform the following tasks:

- seek new and more efficient processes and materials, or improve or find new uses for existing materials
- design methods and equipment to control and contain the processes that transform basic materials into useful products
- ensure the safe, efficient and environmentally friendly operation of equipment and test products at various stages of production to check the quality
- make plans and specifications for new production plants, taking into account available technology, the cost and size of equipment and storage space, market needs, transport methods and disposal of surplus substances
- review current methods of production for cost efficiency, environmental friendliness, maximum output and product quality
- identify faults in the day-to-day operation of process plants (e.g. oil refining, steel making, water treatment) and take corrective action
- prepare reports, feasibility studies and cost analyses of processes
- provide product process information to sales and marketing personnel or customers
- direct and coordinate the work of maintenance and construction tradespeople or process plant operators.

Chemical engineers may advance to become business, technical, financial or works managers, personnel directors or managing directors of large companies.

Chemical engineers usually work standard hours, but may be called in to meet demanding deadlines. Those with responsibilities for continuous process plants may be on call 24 hours a day. Some may work shifts during the commissioning of new plants.

Workplaces range from laboratories and processing plants to engineering design offices and research institutions.

Chemical engineers may specialise in the following diverse fields:

**Bioprocess** which involves pharmaceuticals and the food and drink industries.

**Chemical Process** which involves the fertiliser industry, including pesticides and herbicides, caustic soda, glass and specialty chemicals.

**Combustion** which involves large industrial furnaces such as those for steel manufacture or for power generation from coal or gas.

**Environmental** which involves waste and water treatment, environmental regulations and recycling.

**Minerals** which involves major minerals industries such as alumina/aluminium, steel, copper, lead and gold.

**Petrochemicals** which involves the conversion of oil and gas into plastics, synthetic rubber and similar end uses.

**Petroleum** which involves the production of oil, gas and LPG from onshore and offshore fields.

**Process Control** which involves the instrumentation and control systems which enable a manufacturing process to run smoothly, safely and efficiently.

**Project Delivery** which involves the construction of a process plant, converting the design into an efficient, safe operating plant.

## Personal Requirements

- enjoy technical and engineering work
- safety conscious
- able to identify, analyse and solve problems
- good communication skills
- good at computing and design
- practical and creative
- able to work independently and accept responsibility.

## Education and Training

To become a chemical engineer you usually have to study a chemical engineering degree at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, mathematics and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

## Degree Courses

*Monash University - Clayton Campus:*

Bachelor of Engineering (Chemical), 4 years full time or equivalent

*RMIT University - City Campus:*

Bachelor of Engineering (Chemical Engineering), 4 years full time

*University of Melbourne - Parkville Campus:*

Bachelor of Science, majoring in chemical systems, 3 years full time or equivalent, followed by the Master of Engineering (Chemical), 2 years full time

## Additional Information

Graduates may be eligible for membership of Engineers Australia and/or the Institution of Chemical Engineers in Australia.

## Employment Opportunities

Major employing industries include manufacturers of iron and steel basic products, organic industrial chemicals, the minerals industry and petroleum refiners. There is also scope for chemical engineers to move into related areas including biotechnology, food engineering and mineral engineering.

Others are employed by government agencies assessing and monitoring the risk and impact of chemical processes on the environment (e.g. air and water quality). Those who have built a reputation through working in the industry for several years may become consultants with engineering firms or on a self-employed basis.

A range of careers also exist with the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Australian Nuclear Science and Technology Organisation and state authorities concerned with gas, electricity, water supply and environmental protection.

Graduates may be required to move interstate or overseas for work.

## For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- Institution of Chemical Engineers (IChemE) ☎ (03) 9642 4494  
✉ [austmembers@icheme.org](mailto:austmembers@icheme.org) 🌐 [www.icheme.org](http://www.icheme.org)

## Related Jobs

Agricultural Engineer (p 57); Chemical Plant Operator (p 111); Chemist (p 111); Civil Engineer (p 116); Environmental Engineer (p 167); Industrial Engineer (p 224); Materials Engineer (p 261);



Mechanical Engineer (p 263); Metallurgist (p 271); Minerals Process Engineer (p 277); Mining Engineer (p 278); Patent Examiner (p 312); Petroleum and Gas Plant Operator (p 314); Petroleum Engineer (p 314).

## Chemical Plant Operator

Also known as Chemical Process Operator and Petroleum and Gas Process Operator.

Chemical plant operators control the operation of chemical production equipment used in manufacturing a range of products such as drugs, textiles, ammunition and plastics, and in processing minerals.

Chemical plant operators may perform the following tasks:

- prepare and measure raw materials
- feed raw material and processing agents into plant machinery
- set controls and operate machinery
- check instruments and equipment to make sure of correct operation, and attend to any abnormal operating conditions
- take samples for testing, test products and record process data.

Chemical plant operators may work in production areas that are noisy, hot, dusty and at times contain fumes, however the work environments are generally spacious, ventilated and well lit. The majority of the work may be spent standing and shift work is sometimes required.

Plant operators usually work in teams and must adhere to safety regulations due to the nature of the work. Protective equipment is supplied.

### Specialisation

**Chemical and Hydrocarbon Plant Technician** - controls the operation of plant machinery and equipment to produce chemical products, and to extract, refine and distribute hydrocarbon and oil products. They generally work at a more senior and more technical level to operators and will often be responsible for the supervision of staff.

### Personal Requirements

- enjoy practical and manual activities
- able to work as part of a team
- able to follow written instructions
- good communication and numeracy skills
- physically fit
- mechanical aptitude
- good problem-solving and analytical skills
- aptitude for computerised work
- good hand-eye coordination.

### Education and Training

You can work as a chemical plant operator without formal qualifications. You will probably get some informal training on the job.

You can also become a chemical plant operator through a traineeship in Process Plant Operations. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Chemical, Hydrocarbons and Refining Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

Chemical plant operators are employed in industries producing pharmaceuticals, petrochemicals, plastics, paint, explosives, industrial gases, fertilisers and cosmetics, and in industries processing minerals and treating waste materials. In the minerals industry they are employed in onshore and offshore oil and gas wells or rigs, in refineries and in oil storage facilities (terminals).

Employment opportunities depend on the profitability of these sectors, the price and quantity of similar chemicals imported from overseas, advancements in technology and government controls restricting the nature of by-products.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

### Related Jobs

Chemical Engineer (p 110); Laboratory Worker (p 240); Machine Operator (Non-metal products) (p 252); Mineral Processing Operator (p 277); Petroleum and Gas Plant Operator (p 314); Plastics and Composites Processor (p 324); Recycler (p 349); Rubber Processor (p 357).

## Chemist

Also known as Chemical Scientist.

Chemists study and apply the physical and chemical properties of materials to determine their composition. They use this information to develop new materials and products, to devise more efficient processes for making materials, and to increase scientific knowledge.

Chemists should not be confused with pharmacists (see separate entry for Pharmacist).

Chemists may perform the following tasks:

- conduct experiments to identify chemical composition and study chemical changes which occur in natural substances and processed materials
- undertake research and analysis to develop and test theories, techniques and processes
- develop practical applications of experiments and research findings including those combining new compounds for industrial, agricultural, veterinary and medical use
- test products and materials and prepare specifications and standards, to ensure compliance with government health laws and quality standards
- undertake cost analysis, pricing and quality assurance exercises when developing new substances, processes and products
- take part in the marketing and financial management of substances, processes or products developed
- supervise and coordinate the work of technical support staff
- conduct routine analyses in a process environment.

Chemists may work alone or as part of a team of professionals and technicians. They work in laboratories, in the field or in chemical processing plants, offices and educational institutions.

Depending on the type of laboratory, chemists may have to handle dangerous or hazardous materials. Protective clothing and equipment are usually provided.

### Specialisations

**Analytical Chemist** - carries out tests and analyses to determine the compositions of substances, and to detect the presence of impurities, residues and trace elements.



**Environmental Chemist** - monitors waste products from all sources, and determines ways to neutralise any negative effects pollutants might have on the environment, and devises industrial processes which are environmentally friendly.

**Geochemist** - studies the chemistry of earth materials.

**Industrial/Production Chemist** - designs, runs, troubleshoots and improves the processes of chemical and material production on an industrial scale.

**Organic Chemist** - studies the nature of organic compounds, to develop new substances for use in the industrial, agricultural, veterinary and medical fields.

**Physical Chemist** - studies macroscopic, atomic, subatomic and particulate phenomena in chemical systems in terms of physical laws and concepts.

**Research Chemist** - provides innovative solutions to chemical problems and may be involved in pure or applied research.

#### Personal Requirements

- enjoy scientific activities, including laboratory or fieldwork and research
- able to think logically and creatively
- aptitude for accurate work
- patience, perseverance and an enquiring mind
- able to work individually or as part of a team.

#### Education and Training

To become a chemist you usually have to study science or applied science at university with a major in chemistry. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, geography, mathematical methods, physics, psychology, software development and specialist mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

The following universities offer Bachelors of Science, Applied Science or Applied Chemistry with a major in chemistry, three years full time or equivalent.

*Deakin University - Burwood and Geelong Campuses*

*La Trobe University - Albury-Wodonga, Bendigo and Bundoora Campuses*

*Monash University - Clayton and Gippsland Campuses*

*RMIT University - City Campus*

*Swinburne University of Technology - Hawthorn Campus*

*University of Ballarat - Mount Helen Campus*

*University of Melbourne - Parkville Campus*

*Victoria University - Footscray Park Campus*

#### Additional Information

Graduates may be eligible for membership of the Royal Australian Chemical Institute Inc.

For research and teaching positions, postgraduate qualifications may be required. Geochemists require tertiary training in earth science as well as in chemistry.

#### Employment Opportunities

Chemists are employed in a wide range of government, industrial and university laboratories. They may work in hospital laboratories, or with medical and scientific research bodies, food processing firms and

pharmaceutical manufacturers. They also find employment as consultants, technical specialists, patent officers and teachers.

Chemists may specialise in developing new products or supervising production. With experience, they may progress to management positions.

#### For Further Information

- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- Royal Australian Chemical Institute Inc. (National Office)  
☎ (03) 9328 2033 ✉ [member@raci.org.au](mailto:member@raci.org.au)  
🌐 [www.raci.org.au](http://www.raci.org.au)

#### Related Jobs

Biochemist (p 88); Biotechnologist (p 89); Chemical Engineer (p 110); Dispensary Technician (p 148); Environmental Scientist (p 169); Forensic Scientist (p 192); Metallurgist (p 271); Microbiologist (p 274); Patent Examiner (p 312); Pharmacist (p 315); Pharmacologist (p 316); Toxicologist (p 410).

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## Child Care Coordinator

Also known as Child Care Director.

Child care coordinators direct the activities of child care centres and services.

Child care coordinators may perform the following tasks:

- direct and supervise child care workers in providing care and supervision for young children
- develop and implement programs to enhance the physical, social, emotional and intellectual development of young children
- provide care for children in before-school, after-school, day care and vacation care centres
- manage physical facilities and make sure all buildings and equipment are maintained
- make sure that the centre is a safe area
- maintain records and accounts for the centre
- make sure that procedures are in line with government standards
- keep in touch with parents
- recruit staff and coordinate professional development
- develop and implement policies on a broad range of issues.

#### Personal Requirements

- alert, observant, active and able to use judgment and initiative
- willing to accept responsibility
- able to work cooperatively with others
- able to relate well to children and their parents
- patient
- aptitude for management and business.

#### Education and Training

To become a child care coordinator you usually have to complete a Diploma of Children's Services. However, entry to this occupation may be improved if you have a degree in early childhood education.

Entry to the diploma courses below usually requires Year 12. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the institutions you are interested in for more information as requirements may change.

You can also become a child care coordinator through an apprenticeship in Children's Services or Out of School Hours Care. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian



Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Diploma Courses

##### CMC Training at Work:

Diploma of Children's Services

##### TAFE Victoria - various locations:

Diploma of Children's Services (Outside School Hours Care)

Diploma of Children's Services (Early Education and Care)

##### Gowrie Victoria:

Diploma of Children's Services (Early Education and Care)

Diploma of Children's Services (Out of School Hours Care)

Advanced Diploma of Children's Services

##### Holmesglen Institute of TAFE - Waverley Campus:

Associate Degree in Early Childhood Education

#### Degree Courses

##### La Trobe University - Bendigo Campus:

Bachelor of Early Childhood Education, 4 years full time

##### Monash University - Peninsula Campus:

Bachelor of Early Childhood Education, 4 years full time

##### RMIT University - Bundoora Campus:

Bachelor of Education (Early Childhood), 3 years full time or equivalent

##### University of Ballarat - Mount Helen and Horsham Campuses:

Bachelor of Education (Early Childhood), 4 years full time or equivalent

##### Victoria University - St Albans Campus:

Bachelor of Education (Early Childhood/Primary), 4 years full time

#### Additional Information

Students who have completed a Diploma of Children's Services or equivalent may receive advanced standing in a degree program.

To work in child care in Victoria, you need to obtain a Working with Children Check issued by the Department of Justice. You may also need a police clearance and an approved child care first aid certificate.

#### Employment Opportunities

Child care coordinators are employed in private, government and community-based child care centres, kindergartens and creches. Rapid growth in the number of child care and family care centres in recent years has increased the demand for fully qualified child care coordinators.

Employment prospects depend on the total number of child care centres in operation, the number of people using these centres, the availability of government grants and subsidies, the trend for women to return to the workforce after having children, the population of children of an age requiring child care, and the trend towards out-of-school care, vacation care and occasional care programs.

#### For Further Information

- GoodStart Training College ☎ 1800 617 455  
✉ [goodstart@childcaretraining.com.au](mailto:goodstart@childcaretraining.com.au)  
🌐 [www.goodstart.edu.au](http://www.goodstart.edu.au)
- Child Care Centres Association of Victoria ☎ (03) 9532 2017  
✉ [info@cccav.org.au](mailto:info@cccav.org.au) 🌐 [www.cccav.org.au](http://www.cccav.org.au)
- Department of Education and Early Childhood Development  
☎ (03) 9637 2376 ✉ [newton.mark.m@edumail.vic.gov.au](mailto:newton.mark.m@edumail.vic.gov.au)  
🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)

#### Related Jobs

Child Care Worker (p 113); Nanny (p 286); Teacher - Early Childhood (p 392); Youth Worker (p 442).

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#### To find out more

**Visit** [deewr.gov.au/EarlyChildhood](http://deewr.gov.au/EarlyChildhood) and click on Policy Agenda then Early Childhood Workforce

**Phone** the mychild information line on 13 36 84

## Child Care Worker

Also known as Child Care Assistant, Creche Attendant and Child Care Aide.

Child care workers care for the social, emotional, physical and educational needs of infants and young children in various care settings.

Child care workers may perform the following tasks:

- plan and implement developmental programs based on observation of individual children
- observe and record children's growth, behaviour and development, and discuss with parents
- integrate children with special needs into the program, modifying the program and the physical environment if necessary
- supervise and train staff
- prepare play and learning materials and set up the children's environment
- supervise children's play, making sure of their physical safety at all times
- help children with daily routines such as toileting, dressing, eating and sleeping
- guide children's behaviour and social development
- prepare light snacks and meals
- maintain a safe, clean, appealing environment
- perform simple first aid in emergencies.

Child care workers' duties and hours of work vary and they are often required to do shift work. Child care workers often share basic tasks and work in teams. They spend long periods on their feet and often have to lift and carry children and move equipment.

#### Specialisation

**Out-of-school Services Worker** - provides stimulating and developmentally appropriate activities for children aged 5-12. Hours of duty vary for after-school and vacation care (ranging from part time or casual to full time).

C

Child Care Worker



### Personal Requirements

- alert, observant and active
- able to use judgment and initiative
- willing to accept responsibility
- able to work as part of a team
- able to relate well to children and their parents
- patient
- able to lift children and equipment.

### Education and Training

To become a child care worker you usually have to complete a certificate or diploma course in child care. Entry to the certificate courses usually requires at least Year 10. Entry to the diploma course usually requires completion of Year 12. Applicants may also be required to attend an interview.

Relevant certificate and diploma courses are widely available and are offered by Registered Training Organisations, including TAFE. Check institution handbooks for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Child Care Worker at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a child care worker through an apprenticeship in Children's Services or Outside School Hours Care. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, or have recognised, additional skills under the Community Services Training Package that will expand your career opportunities within the industry.

To work in child care in Victoria, you need to obtain a Working with Children Check issued by the Department of Justice. You also need a police clearance and an approved child care first aid certificate.

### Employment Opportunities

Child care workers are employed in private, government and community-based child care centres, kindergartens and creches. They may also work in hospitals, women's shelters and neighbourhood houses. Rapid growth in the number of child care and family care centres in recent years has increased the demand for fully qualified child care workers. Experienced, fully qualified child care workers may progress to coordinate or manage a licensed child care centre. While this is a growing occupation, it is also very popular and competition for jobs may be strong.

Self-employment prospects exist by becoming a registered family day care provider in your own home. See the separate entry for Family Day Carer.

### For Further Information

- GoodStart Training College ☎ 1800 617 455  
✉ [goodstart@childcaretraining.com.au](mailto:goodstart@childcaretraining.com.au)  
🌐 [www.goodstart.edu.au](http://www.goodstart.edu.au)
- Child Care Centres Association of Victoria ☎ (03) 9532 2017  
✉ [info@cccav.org.au](mailto:info@cccav.org.au) 🌐 [www.cccav.org.au](http://www.cccav.org.au)
- Human Resources, Department of Education and Early Childhood Development ☎ 1800 641 943 ✉ [hrweb@edumail.vic.gov.au](mailto:hrweb@edumail.vic.gov.au)  
🌐 [www.education.vic.gov.au/hrweb](http://www.education.vic.gov.au/hrweb)

### Related Jobs

Child Care Coordinator (p 112); Education Aide (p 156); Family Day Carer (p 171); Nanny (p 286); Teacher - Early Childhood (p 392); Teacher - Primary (p 396); Youth Worker (p 442).

## Become a childcare worker

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\*Conditions apply



### Australian Government

It's never been easier to begin your career in early childhood education.

The demand for early childhood professionals is growing, so there are plenty of opportunities for you to work in preschools, kindergartens and child care centres around Australia.

### Thinking about a career in early childhood?

There are a number of Australian Government initiatives that could assist you.

#### To find out more

Visit [deewr.gov.au/EarlyChildhood](http://deewr.gov.au/EarlyChildhood) and click on Policy Agenda then Early Childhood Workforce

Phone the mychild information line on 13 36 84

## Chiropractor

Chiropractors diagnose and treat patients by triggering the body's inherent recuperative abilities, to alleviate health problems related to the nervous and skeletal systems, particularly the spine, without the use of drugs or surgery.

Chiropractors may perform the following tasks:

- write down patients' case history details, conduct physical examinations and interpret diagnostic imaging studies such as X-rays
- adjust patients' spine or other joints to correct joint dysfunctions interfering with proper nervous system control and integration of body function
- treat patients by adjusting the spinal column to manipulate joints and soft tissues
- conduct specialised work such as sports chiropractic, paediatrics, diagnostic imaging or various chiropractic techniques
- give advice on general health matters such as exercise and nutrition
- perform pre-employment examinations and workplace assessments
- provide certificates for insurance purposes, worker's compensation, motor vehicle accidents and Department of Veterans Affairs beneficiaries.

### Personal Requirements

- enjoy health sciences
- strong interpersonal skills
- attention to detail
- ability to perform fine manual tasks



- able to think and work independently
- strong analytical ability.

#### Education and Training

To become a chiropractor you usually have to study chiropractic science at university. This involves completion of a five-year program incorporating a bachelor and masters degree in chiropractic science at RMIT University. To get into this course you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and chemistry are normally required. Entry can be highly competitive and applicants may be required to attend an interview. Contact the university for more information as requirements may change.

#### Degree Courses

**RMIT University - Bundoora Campus:**

Bachelor of Health Science (Chiropractic), and Master of Clinical Chiropractic, 5 years full time

#### Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including chiropractic. Boards in each state and territory implement these national standards and policies. For full details, see the Chiropractic Board of Australia website.

It is a legal requirement for graduates to be registered with the Chiropractic Board of Australia before being able to practice as a chiropractor in any state or territory in Australia.

Graduates of the RMIT University program are also eligible for registration with some international accreditation authorities.

#### Employment Opportunities

Opportunities exist for new graduates to work as locums, as associates of established clinics, or to set up their own practice. Research and teaching positions exist in NSW, Victoria and WA. Established chiropractors usually work in their own private practice or in clinics with other health care professionals. They may also act as allied health consultants in areas including occupational health and safety, sport, rehabilitation, health insurance assessment and medico-legal advising.

Job prospects are dependent upon consumer demand for drug-free approaches to healthcare, both in Australia and throughout the world. Chiropractic care has recently become more accepted as a result of research and changing attitudes about alternative, drug-free, non-invasive healthcare practices. Prospects are also likely to be affected by an increase in the number of elderly people in the population, as this group is more likely to experience health problems that are treatable by chiropractors. Demand is also affected by the extent to which chiropractic services are covered by private health insurance providers.

#### For Further Information

- Chiropractic Board of Australia ☎ 1300 419 495  
🌐 [www.chiropracticboard.gov.au](http://www.chiropracticboard.gov.au)
- Chiropractors' Association of Australia (National) Ltd.  
☎ (02) 4731 8011 or 1800 075 003 (FREECALL)  
✉ [caa@caa.asn.au](mailto:caa@caa.asn.au) 🌐 [www.chiropractors.asn.au](http://www.chiropractors.asn.au)

#### Related Jobs

Acupuncturist (p 52); Massage Therapist (p 258); Medical Practitioner (p 268); Natural Therapist (p 288); Osteopath (p 305); Physiotherapist (p 319); Podiatrist (p 325).

## Civil and Structural Engineering Associate 率

Also known as Civil Engineering and Structural Technician.

Civil and structural engineering associates provide technical support to civil engineers and civil engineering technologists. They assist in the research, design, construction, operation and maintenance of projects such as roads, airports, railways, buildings, bridges, dams and drainage systems.

Civil and structural engineering associates may perform the following tasks:

- help to estimate costs, prepare specifications for materials and carry out surveying and drafting
- prepare working drawings, plans and designs for construction work
- use computers to produce designs, detailed drawings and documentation
- help in programming the work, checking materials and inspecting the work
- maintain close contact with construction workers and project managers
- check that finished works are within specifications, regulations and contract provisions
- inspect civil engineering works and organise and supervise maintenance and repair work.

Civil and structural engineering associates may work in offices, technical laboratories, workshops or on-site.

#### Specialisations

**Civil Engineering Design Drafter** - prepares technical design drawings for the construction of structural, sanitary, transportation, drainage and other civil engineering projects.

**Engineering Technical Officer** - performs a wider range of technical tasks. This could be operating specialised machinery, or coordinating a team of workers in undertaking specific tasks, such as preparing a foundation for structural construction to support the construction process.

**Structural Engineering Design Drafter** - prepares drawings for the construction of steel, concrete or timber structures (e.g. framed buildings, roof trusses, cranes, bridges, towers and supporting structures).

#### Personal Requirements

- able to identify, analyse and solve technical problems
- good oral and written communication skills
- capable of accurate, detailed work
- aptitude for computing and design
- practical and creative
- able to work independently or as part of a team
- able to accept responsibility.

#### Education and Training

To become a civil and structural engineering associate you usually have to complete a diploma or advanced diploma in civil engineering that is recognised by Engineers Australia. Entry to the courses below usually requires you to gain your VCE. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

#### Diploma Courses

**Box Hill Institute of TAFE - Elgar Campus:**

Diploma of Engineering Technology (Civil)

Advanced Diploma of Engineering Technology (Civil)



### Victoria University (TAFE Division) - Sunshine Campus:

Diploma of Engineering Technology (Civil)

Advanced Diploma of Engineering Technology (Civil)

### Additional Information

Graduates may be eligible for membership of the Society of Engineering Associates and Engineers Australia as Engineering Associates.

### Employment Opportunities

Civil and structural engineering associates are employed in building and construction companies, federal, state or territory government departments, and by local government councils. They are also employed by architectural and engineering consultancy firms. There are opportunities for contract work.

The major area of employment is engineering drafting. Demand is usually dependent on the activities in the construction industry.

### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au
- Institute of Public Works Engineering Australia (IPWEA)  
☎ (02) 9267 6677 ✉ ipwea@ipwea.org.au  
🌐 www.ipwea.org.au

### Related Jobs

Architectural Technician (p 71); Civil Engineer (p 116); Civil Engineering Technologist (p 118); Electrical Engineering Associate (p 158); Electronics Engineering Associate (p 162); Mechanical Engineering Associate (p 264); Surveying Technician (p 388).

## Civil Celebrant

Also known as Celebrant, Marriage Celebrant, Funeral Celebrant, Family Celebrant and Community Celebrant.

Civil celebrants conduct civil (non-religious) marriage ceremonies, funerals, commitment ceremonies, namings and other ceremonies, and maintain appropriate records.

Civil celebrants may perform the following tasks:

- ensure legal paperwork is correct and submitted on time
- work with individuals, couples, families or other groups to create a ceremony meeting their requirements
- write and conduct ceremonies
- solemnise or legally observe marriages
- communicate with people dealing with significant life changes, including loss and grief.

### Personal Requirements

- enjoy working with a variety of different people
- good oral and written communication skills
- confident in public speaking situations
- flexible, tactful and empathetic
- mature, responsible, dedicated and conscientious
- socially and psychologically insightful
- well organised.

### Education and Training

You can become a civil celebrant without formal training. However, entry to this occupation may be improved if you have qualifications. In order to perform weddings you will need to complete a Certificate IV in Celebrancy and meet the Fit and Proper Person Requirements set for appointment. For more information, visit the Attorney-General's Department website.

### Additional Information

To perform weddings you must be at least 18 years of age and registered by the Attorney-General's Department. You will also need to undertake regular professional development. Marriage celebrants have a complex set of responsibilities under the law and failure to meet these is a criminal offence in some cases.

There are separate registration criteria for marriage celebrants who are fluent in an Australian Indigenous language. For more information, contact the Marriage Celebrants Section of the Attorney-General's Department.

### Employment Opportunities

Civil celebrants usually perform only a small number of weddings and other ceremonies each year. Most civil celebrants take on other jobs for financial support.

### For Further Information

- Attorney-General's Department, Marriage Celebrants Section  
🌐 www.ag.gov.au/celebrants
- Coalition of Celebrant Associations ☎ (03) 9484 7443  
🌐 www.celebrancy.com

### Related Jobs

Events Coordinator (p 170); Funeral Attendant (p 196).

## Civil Engineer

Civil engineers plan, design, construct, operate and maintain roads, bridges, dams, water supply schemes, sewerage systems, transportation systems, harbours, canals, dockyards, airports, railways, factories and large buildings.

Civil engineers may perform the following tasks:

- investigate sites to work out the most suitable foundation for a proposed construction
- research and advise on the best engineering solution to meet with a client's needs and budget
- produce detailed designs and documentation for the construction and implementation of civil engineering projects
- organise the delivery of materials, plant machinery and equipment needed for the construction project and supervise labour
- develop detailed programs for the coordination of site activities
- talk to other engineers, architects, landscape architects and environmental scientists
- assist government bodies in preparing yearly works programs within set budgets (e.g. for works on car parks, drainage, roads, aerodromes or sewerage)
- prepare engineering calculations required for the design of projects and supervise the drafting of plans
- operate computers to assist with the design of civil engineering projects
- coordinate and direct research development and testing of materials, processes or systems related to civil engineering works
- research, advise on and plan the control and minimisation of air, water and solid waste pollution, and the management of water resources
- supervise the testing and commissioning of completed works
- analyse and interpret reports on loading, labour, productivity, quality, materials and performance
- analyse risks associated with natural disasters including wind, earthquake, fire and floods, and design structures and services to meet appropriate standards
- arrange for geological and geophysical investigations and carry out feasibility studies.



Civil engineers usually work in one of the following areas: structural, water resources, soil and foundation, transport, town planning or construction.

They may work in offices or spend much of their time on site. They may be required to work long hours and meet strict deadlines while working under minimal supervision. Civil engineers deal with various professional, skilled and semi-skilled people.

Consulting and contracting engineers often travel interstate and some travel overseas. It may be necessary for some civil engineers to change residence every few years as their work takes them from one major engineering site to another.

#### Specialisations

**Airport Engineer** - specialises in preparing designs for airports, hangars and control towers.

**Geotechnical/Soil Engineer** - inspects proposed construction sites to work out soil and foundation conditions by conducting drilling and sampling programs. Duties may include preparing specifications of soil mixtures for use in roads, embankments and other construction.

**Harbour Engineer** - designs and supervises the construction of harbour facilities such as breakwaters, navigation aids, navigation channels, jetties, wharves, heavy-duty pavement surfaces, cargo sheds and bulk handling plants for grain, ore and other cargo.

**Highway Engineer** - specialises in analysing population and growth statistics and traffic patterns and volume to project future requirements. Duties may include designing efficient and safe traffic systems, studying roadway and embankment design, the geometry of highway interchanges and the maintenance of facilities such as culverts and overpasses.

**Hydraulic/Water Resources Engineer** - designs and supervises construction, and advises on the operation, maintenance and repair of water resource facilities such as dams, aqueducts, hydro-electric plants, and water supply, drainage and sewerage systems.

**Irrigation/Drainage Engineer** - uses tests and measurements to analyse the characteristics of soil, such as salinity, water table level, areas of subnormal plant growth, soil type and surface profile.

**Local Government Engineer** - administers and supervises the design, construction and maintenance of projects such as roads, drainage systems, pedestrian and cycle facilities, bridges, buildings, recreation grounds, parks, waste disposal and water treatment schemes within a local government area.

**Materials and Testing Engineer** - conducts research, development tests and evaluation of the quality or suitability of materials and products such as asphalt, concrete, steel, cement, timber and plastics, taking into account factors such as stresses and strains, estimated load, water pressures, wind resistance and temperature fluctuations related to projects.

**Pipeline Engineer** - specialises in preparing design proposals for pipelines and pipeline equipment, facilities and structures in consultation with petroleum and mechanical engineers.

**Railway Engineer** - studies design proposals and advises on the construction, maintenance and repair of railway systems including tracks, terminals and yards.

**Structural Engineer** - designs the framework of buildings, towers, bridges, water treatment structures, tunnels and other structures to make sure of strength and rigidity.

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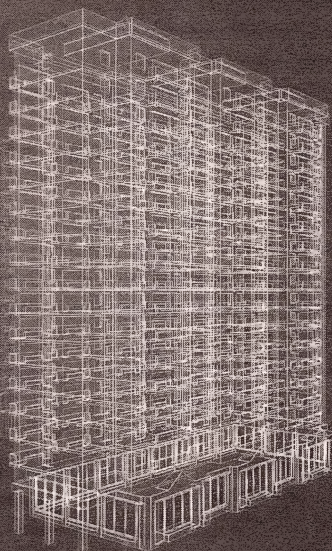
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### Personal Requirements

- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work without supervision
- able to work as part of a team
- able to accept responsibility
- willing to contribute and adhere to the safety requirements of the operation.

### Education and Training

To become a civil engineer you usually have to study engineering at university with a major in civil engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics and chemistry are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *Deakin University - Geelong Campus and Distance Education:*

Bachelor of Engineering, majoring in engineering (civil), 4 years full time or equivalent

##### *La Trobe University - Bendigo Campus:*

Bachelor of Civil Engineering, 4 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Engineering, majoring in engineering (civil), 4 years full time or equivalent

##### *Monash University - Gippsland Campus:*

Bachelor of Civil and Environmental Engineering, 4 years full time or equivalent

##### *RMIT University - City Campus:*

Bachelor of Engineering (Civil and Infrastructure), 4 years full time

##### *Swinburne University of Technology - Hawthorn Campus:*

Bachelor of Engineering (Civil Engineering), 4 years full time or equivalent

##### *University of Melbourne - Parkville Campus:*

Bachelor of Science/Bachelor of Environments/Bachelor of Commerce (Civil Systems), 3 years full time or equivalent, followed by Master of Engineering (Civil), 2 years full time

##### *Victoria University - Footscray Park Campus:*

Bachelor of Engineering (Civil), 4 years full time

### Additional Information

Students of the above courses may be eligible to join Engineers Australia as student members. Upon graduation, after providing a certified copy of their degree, they may apply for graduate membership of the institution without further examination.

Prospective local government engineers may be required to hold qualifications acceptable to Engineers Australia and undertake further studies in municipal engineering.

### Employment Opportunities

Civil engineers are employed by government departments and agencies, municipal authorities, civil engineering contractors, consulting engineers and mining companies.

Much of the work previously undertaken by government departments is contracted out to consulting engineers.

A small proportion of engineers work in research activities and teach in industrial, government and university research establishments.

### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Institute of Public Works Engineering Australia (IPWEA)  
☎ (02) 9267 6677 ✉ [ipwea@ipwea.org.au](mailto:ipwea@ipwea.org.au)  
🌐 [www.ipwea.org.au](http://www.ipwea.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)

### Related Jobs

Aerospace Engineer (p 55); Agricultural Engineer (p 57); Architect (p 70); Building Contractor (p 95); Building Surveyor (p 96); Chemical Engineer (p 110); Civil and Structural Engineering Associate (p 115); Civil Engineering Technologist (p 118); Electrical Engineer (p 156); Environmental Engineer (p 167); Geological Engineer (p 201); Geologist (p 202); Industrial Engineer (p 224); Mechanical Engineer (p 263); Mining Engineer (p 278); Naval Architect (p 290); Quality Assurance Inspector (p 342); Surveyor (p 389); Urban and Regional Planner (p 423).

## Civil Engineering at Melbourne.

[eng.unimelb.edu.au/](http://eng.unimelb.edu.au/)



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### Civil Engineering Technologist ★

Civil engineering technologists support and supervise a range of functions to assist civil engineers in the research, design, construction and maintenance of civil engineering projects. Typical projects include dwellings, large buildings, railways, roads, bridges, airports, ports and docks, dams and water supply systems.

Civil engineering technologists may perform the following tasks:

- estimate costs and prepare specifications for materials used in civil engineering works
- assist in establishing detailed programs for the planning of design and construction processes
- communicate with project managers and construction workers
- organise the delivery of materials, plant machinery and equipment needed for construction, and supervise labour
- analyse and record reports on loading, labour, productivity, quality, materials and performance
- operate and program computers to assist with calculations
- measure and test material processes or systems related to civil engineering works
- inspect civil engineering works, modify and supervise repair work and maintenance
- check to make sure that finished works are within specifications, contract terms and regulations.

Civil engineering technologists may specialise in the areas of buildings, water resources, soils and foundations, transport or town planning.

Consulting and contracting engineering technologists often travel interstate and some may travel overseas. It may be necessary for some civil engineering technologists to change residence every few years as their work takes them from one major engineering site to another.



### Personal Requirements

- analytical skills with an eye for detail
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- good problem-solving skills
- able to work without supervision
- able to accept responsibility.

### Education and Training

To become a civil engineering technologist you usually have to study engineering science at university with a major in civil engineering. To get into the course below you usually need to gain your VCE with mathematics. Contact the university for more information as requirements may change.

### Degree Courses

University of Ballarat - Mount Helen Campus:

Bachelor of Engineering Science (Civil Engineering), 3 years full time or equivalent

### Additional Information

Students of the above course may be eligible to join Engineers Australia as student members. Upon graduation, after providing a certified copy of their degree, they may apply for graduate membership of the institution without further examination.

Prospective local government engineers should hold qualifications acceptable to Engineers Australia and may be required to undertake further studies in municipal engineering.

Graduates of technology degree courses may be able to upgrade their qualifications to the level of professional engineer.

### Employment Opportunities

Civil engineering technologists are employed by government organisations, municipal authorities, civil engineering contractors and consulting engineers. There may also be opportunities for self-employment as a contractor. Much work previously undertaken by government departments is contracted out to consulting engineers.

Employment prospects tend to vary with the level of construction activity.

### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Institute of Public Works Engineering Australia (IPWEA)  
☎ (02) 9267 6677 ✉ [ipwea@ipwea.org.au](mailto:ipwea@ipwea.org.au)  
🌐 [www.ipwea.org.au](http://www.ipwea.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)

### Related Jobs

Civil and Structural Engineering Associate (p 115); Civil Engineer (p 116).

## Cleaner

Cleaners clean schools, construction sites, commercial, industrial and domestic premises, or industrial machinery and vehicles, using portable cleaning equipment.

Cleaners may perform the following tasks:

- operate vacuum cleaners to clean floors, work areas and machinery
- clean, dust and polish furniture and fittings

- sweep, mop, scrub and polish floors, shampoo carpets and rugs, and strip wax and polish from floors
- clean walls and windows
- clean and disinfect laundry, kitchen, toilet and bathroom fixtures and floors
- empty and clean ashtrays and waste containers
- clean areas surrounding buildings, such as paths and entrances
- remove graffiti.

Cleaners are often responsible for the security of the building in which they work. This responsibility includes ensuring that lights and electrical appliances are turned off, that the building is locked and secure, and that any security breaches are reported to building owners or managers.

Cleaners often work irregular hours in shifts and may be employed as full-time, part-time or casual staff.

### Specialisations

**Carpet Cleaner** - uses steam-clean and pile-lift machines to clean, scrub and brush carpets. They may also clean upholstered furniture and remove stains from carpets.

**Domestic Cleaner** - cleans and tidies homes, performing tasks such as cleaning floors, walls and windows, emptying rubbish bins and tidying rooms. They may also make beds, iron clothes and wash dishes.

**Hospital/Hostel Cleaner** - undertakes sterilisation and antiseptic protocols and procedures using specialised chemicals.

**Industrial Cleaner** - may remove rubble and surplus building materials from construction sites, or dismantle and clean machinery. They may use heavy-duty cleaning equipment, such as pressure hoses and ride-on powered scrubbing machines.

**Industrial Plant Cleaner** - keeps working areas in production departments of industrial establishments clean and orderly.

**Steam, Pressure and Chemical Cleaner** - works indoors and outdoors with high-pressure or chemical cleaning equipment to strip paint, dirt or grease from buildings and machines.

**Window Cleaner** - cleans interior and exterior window surfaces.

Cleaning exterior surfaces on multistorey buildings involves cleaners using a 'cherry picker' or hoist system. They may also clean stone walls, metal surfaces and window frames.

### Personal Requirements

- enjoy practical work
- methodical
- honest and reliable
- able to bend, stand and lift.

### Education and Training

You can work as a cleaner without formal qualifications. You will probably get some informal training on the job.

You can also become a cleaner through a traineeship in Asset Maintenance (Cleaning Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.



### Employment Opportunities

Most cleaners work for contract cleaning companies or large factories, businesses or firms. A high proportion of cleaners are employed on a permanent part-time or casual basis, and many have to work very early in the morning or at night.

Opportunities exist for experienced cleaners to become supervisors and managers in some of the larger contract-cleaning firms. Self-employment is also possible.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Building Service Contractors Association of Australia (Victorian Division) ☎ 1800 306 020 (FREECALL)  
✉ bscaavic@bscaa.asn.au 🌐 www.bscaa.asn.au

#### Related Jobs

Car Wash Attendant (p 102); Garbage Collector (p 199); Handyperson (p 209); Kitchenhand (p 240); Laundry Worker (p 243); Recycler (p 349); Room Attendant (p 356); Ship's Catering Attendant (p 369); Usher (p 424); Ward Assistant (p 432).

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## Clerical Officer - Local Government

Also known as Local Government Clerk.

Local government clerical officers undertake a range of clerical and administrative activities, respond to enquiries from the public and other organisations, and look after particular aspects of the council's business.

Clerical officers may perform the following tasks:

- receive and distribute incoming and outgoing mail
- send letters of summons and other correspondence to individuals and legal firms
- administer local community programs and projects in areas such as the arts, welfare, aged care and children's services
- operate office equipment such as photocopiers, facsimile machines and switchboards
- input and retrieve data on computers using various computing applications (e.g. word processing, spreadsheets and databases)
- organise travel arrangements, conferences and social functions
- receive payments, bank money, check receipts and balance ledgers
- distribute rate notices, collect rates, write correspondence and undertake general administrative work
- undertake or assist in the research, legal, costing and accounting activities of council
- prepare agendas for meetings and take minutes
- provide on-the-job training and supervise other officers.

With experience and sometimes further training, clerical officers can progress to positions such as clerical head of department, accountant, personnel officer, purchasing officer, public relations officer, computer programmer, or senior administration officer.

Local government clerical staff are divided into various levels ranging from junior clerks to senior positions.

#### Personal Requirements

- enjoy clerical and administrative work
- able to work neatly and accurately
- good organisational and communication skills
- able to cooperate with people and work as part of a team
- enjoy serving the local community.

### Education and Training

You can work as a clerical officer in local government without formal qualifications. You will probably get some informal training on the job. However, there are a number of courses available, such as administration, bookkeeping and customer service courses, that may assist you in gaining employment.

Costs, duration and entry requirements may vary between courses. See the online entry for Clerical Officer - Local Government at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a clerical officer through a traineeship in Local Government or other relevant areas, such as administration and business. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Clerical vacancies in local government administration arise on a fairly regular basis, with demand reasonably stable. Demand is influenced by the state of the economy and the level of government funding to local councils, the rates base of the council and the types of amenities and services provided by individual councils.

#### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)

#### Related Jobs

Accounts Clerk (p 50); Administrative Assistant (p 54); Cashier (p 107); Local Government Inspector (p 251); Public Servant - Australian Public Service (p 340); Public Servant - State Government (p 341); Receptionist (p 346).

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## Clinical Coder

Also known as Medical Record Coder.

Clinical coders translate descriptions of medical diagnoses and procedures into codes, which record health care data.

Clinical coders may perform the following tasks:

- read and analyse medical records to help identify all diagnoses, operations and procedures relevant to the current period of patient care
- clarify inconsistent, doubtful or non-specific information in a medical record by consulting with the responsible medical practitioner
- allocate codes to patients' current period of care, using knowledge of the information contained within the International Classification of Diseases, 10th Revision, commonly referred to as ICD-10-AM
- conduct assessment of work to make sure that there is continuous improvement in ICD-10-AM coding and collection of quality health data
- assess the medical record content and highlight shortcomings to management
- maintain ICD-10-AM coding books to make sure they are updated to the current version being used
- assist with the education of clinical staff with regard to ICD-10-AM
- work with computing and finance staff
- assist with medical research and casemix (patient statistics) projects.

Clinical coders work closely with medical staff who are responsible for recording the information required for coding medical data within patients' medical records.



### Personal Requirements

- able to perform precise and detailed work
- good communication and interpersonal skills
- able to work as part of a team
- interested in health care procedures
- willing to continually update skills and knowledge.

### Education and Training

To become a clinical coder you usually have to complete an accredited ICD-10-AM coding course.

Entry to the following course requires an 80 per cent pass in the Health Information Management Association of Australia (HIMAA) Comprehensive Medical Terminology course or the HIMAA Challenge examination in Medical Terminology. There are no specific prerequisites for these courses. Enrolment intakes currently occur in April and July.

### Short Courses

Health Information Management Association of Australia (HIMAA) - Distance Education:

Introductory ICD-10-AM

### Employment Opportunities

Clinical coders work mainly in public and private hospitals. Roles vary depending on the size and type of services offered. For example, a coder in a country regional area may be responsible for the production of data for a number of hospitals, involving travel to each. In larger institutions, the role of the coder may also include supervision of coding staff, data analysis and education. Coders may also work in specialist research and clinical units and for health insurance funds.

### For Further Information

- Health Information Management Association of Australia Ltd  
☎ (02) 9887 5001 ✉ himaa@hima.org.au  
🌐 www.himaa.org.au

### Related Jobs

Health Information Manager (p 210); Librarian (p 246).

## Clothing and Soft Furnishing Production Worker

Clothing and soft furnishing production workers are involved in all stages of production, from marking and cutting the fabric through to finishing the item.

Clothing and soft furnishing production workers may perform the following tasks:

- prepare machines for use by selecting and installing clothing production attachments
- set and operate clothing production equipment controls
- start and monitor clothing production equipment
- mix fibres into uniform blends or add dyes or chemicals
- examine final products for defects.

Clothing and soft furnishing production workers can work in factories or at home using a range of specialist machines. They may be employed on a full-time, part-time or casual basis.

### Specialisations

**Cutter** - creates patterns that can be made into clothes. Cutters arrange patterns for garments on a piece of cloth or marker paper, making sure that no material is wasted, and then cut the cloth using shears, a hand-held electric cutter or computer-assisted cutting equipment.

**Material Handler** - checks that parts of garments are sorted according to style, size and colour before they go to the machinists to be sewn up.

**Product Examiner** - checks products for faults both during and after manufacture.

**Sewing Machinist** - operates sewing machines using various sewing techniques such as hemming and pleating.

**Soft Furnishing Maker** - makes curtains, cushions or furniture coverings and takes measurements, provides cost estimates, and fits tracks and curtains on site.

### Personal Requirements

- enjoy practical and manual activities
- able to work as part of a team
- able to do neat, detailed work
- able to work patiently and systematically, and to meet production deadlines
- good eyesight (may be corrected) and normal colour vision
- good hand-eye coordination
- physically fit
- good communication skills.

### Education and Training

You can work as a clothing and soft furnishing production worker without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications in clothing production or soft furnishing. Entry to the certificate courses below usually requires at least Year 10. As subjects can vary between institutions, you should contact the institutions you are interested in for full details.

You can also become a clothing and soft furnishing production worker through a traineeship in Clothing Production (Complex or Multiple Processes), Clothing Production (Intermediate) or in Soft Furnishing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

RMIT University (TAFE Division) - Brunswick Campus:

Certificate II in Clothing Production (Complex or Multiple Processes)

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Furnishing or Textiles, Clothing and Footwear Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Clothing and soft furnishing production workers are employed by small and large manufacturing businesses. A number of clothing and soft furnishing production workers establish their own businesses.

### For Further Information

- Australian Industry Group 🌐 www.zoomplus.aigroup.asn.au
- Council of Textile and Fashion Industries of Australia  
☎ (03) 8680 9400 ✉ info@tfia.com.au 🌐 www.tfia.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au
- Window Coverings Association of Australia Inc ☎ 1300 734 229  
✉ national@wcaa.com.au 🌐 www.wcaa.com.au



### Related Jobs

Clothing Patternmaker (p 122); Industrial Textiles Fabricator (p 227); Leather Goods Maker (p 246); Textile Mechanic (p 402); Upholsterer (p 422).

## Clothing Patternmaker

Also known as Patternmaker-grader.

Clothing patternmakers produce master patterns from designs. They work closely with designers, interpreting their sketches to develop a style that can be achieved by the company's equipment and staff, and which fits the image of the company's label.

Clothing patternmakers may perform the following tasks:

- interpret a design sketch
- choose the correct 'block' (a pattern shape that forms the basic characteristics of a garment)
- make adjustments to the pattern to arrive at a sample pattern, usually a standard size 12, which is then used to decide whether to produce the garment in bulk
- check the accuracy of the sample pattern
- work with the sample machinist at various stages throughout the process, such as cutting out the sample garment and determining the amount of fabric used
- advise on the correct machining technique to use
- check that the sample garment maintains the look of the original design
- check the fit of the sample on a dummy, or on a model employed by the firm
- modify sample garments to meet cost specifications and manufacturing limitations
- once it is approved for production, reproduce the sample pattern on a pattern board to make a master pattern
- create the required range of sizes by 'grading' the pattern, usually using a Computer-Aided Design (CAD) system.

In some cases, the patternmaker may be employed in a combination of job roles such as a designer-sample machinist, grader or marker maker.

### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- artistic flair with an eye for detail
- good sense of proportion
- good at technical activities
- able to work neatly and accurately.

### Education and Training

To become a clothing patternmaker you usually have to complete a certificate in applied fashion design and technology. Entry to the certificate courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a clothing patternmaker through an apprenticeship in Clothing Production or Applied Fashion Design and Technology. Entry requirements may vary, but employers generally require Year 10. Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

*Bendigo Regional Institute of TAFE - Bendigo Campus:*

Certificate IV in Applied Fashion Design and Technology

*Box Hill Institute of TAFE - Whitehorse Campus:*

Certificate IV in Applied Fashion Design and Technology

*Gordon Institute of TAFE - Geelong City Campus:*

Certificate IV in Applied Fashion Design and Technology

### Additional Information

With increasing use of CAD techniques, computer skills will greatly improve your employment prospects in this field.

### Employment Opportunities

Clothing patternmakers are employed by clothing manufacturers in small or large businesses. They are usually multi-skilled and are likely to be involved not only in patternmaking, but also in design and cutting for garment production. Patternmakers can establish their own businesses as dressmakers or tailors.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Council of Textile and Fashion Industries of Australia  
☎ (03) 8680 9400 ✉ [info@tfia.com.au](mailto:info@tfia.com.au) 🌐 [www.tfia.com.au](http://www.tfia.com.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)

### Related Jobs

Clothing and Soft Furnishing Production Worker (p 121); Milliner (p 275); Theatrical Costume Maker and Designer (p 404).

## Community Worker

Also known as Community Development Officer.

Community workers encourage and assist community groups to identify their needs, participate in decision-making and develop appropriate services and facilities to meet those needs.

Community workers may perform the following tasks:

- assist community groups in planning, developing, maintaining and evaluating community resources, programs and support networks
- support, develop and evaluate strategies that encourage community participation in activities
- research, analyse and assist council, town planning, corporate planning and environmental health departments in developing community service policies
- communicate frequently with community groups, welfare agencies, government bodies, non-government organisations and private businesses about community services such as housing, health, welfare and recreation
- monitor, evaluate and recommend changes to community development programs, policies, practices or budgets
- help raise community and public awareness regarding issues such as welfare rights by promoting, organising and/or helping to coordinate meetings and seminars
- carry out administrative work which may include written correspondence, preparing submissions and reports for government bodies or other agencies and attending management meetings.

The work of community workers involves considerable personal contact and travel within communities. They are normally expected to attend evening meetings and occasional weekend activities.

### Specialisation

**Aboriginal Affairs Administrator** - is involved in running organisations that provide services and assistance to Aboriginal communities in areas such as art and crafts, education, health and



housing. Their work also involves organising events and activities to meet local needs.

#### Personal Requirements

- enjoy assisting people
- able to work independently
- able to work in cooperation with others
- good work organisation and time management skills
- able to relate to people effectively and patiently
- able to manage and help resolve conflict
- able to understand the issues and interests of the communities involved
- good oral and written communication skills.

#### Education and Training

To become a community worker you usually have to complete a certificate, diploma or degree in a relevant discipline such as social work, social sciences or community services. Certificate and diploma courses in these areas are widely available and offered by various Registered Training Organisations, including TAFE. Degree courses in these areas are also widely available at most universities in Victoria. For course details, check institution handbooks or see the entries for Aboriginal and Torres Strait Islander Health Worker, Social Worker, Welfare Worker and Youth Worker.

Entry to certificate courses usually requires at least Year 10. To get into diploma and degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

Costs, duration and entry requirements may vary between courses. See the online entry for Community Worker at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

To become a member of the Australian Institute of Welfare and Community Workers (AIWCW) you need to complete a degree or a 2-year diploma in community welfare work, community development, disability work, youth work or similar disciplines at a campus approved by the AIWCW. Contact the Institute for further information and a list of approved courses.

#### Employment Opportunities

Community workers work with groups of people in various settings including aged-care, youth and community centres; youth shelters; centres for people with disabilities; in Aboriginal communities; for local councils; and for the family and community service agencies of state and territory governments.

Many community workers move on to self-employment and undertake contract community work on specific projects. In local government, councils are increasingly working closely with their communities and may be taking on specialist staff.

Community workers may work in urban or remote areas. Employment prospects depend on the level of government funding for community

organisations and the number of programs to be conducted and administered.

#### For Further Information

- Community Services and Health Industry Skills Council Ltd  
☎ [www.careersthatmatter.com.au](http://www.careersthatmatter.com.au)
- The Australian Institute of Welfare and Community Workers (National Office) ☎ (03) 9654 8287 ✉ [info@aiwcw.org.au](mailto:info@aiwcw.org.au)  
☎ [www.aiwcw.org.au](http://www.aiwcw.org.au)

#### Related Jobs

Aboriginal/Torres Strait Islander Health Worker (p 47); Arts Administrator (p 76); Counsellor (p 133); Disability Services Instructor (p 148); Probation and Parole Officer (p 333); Social Worker (p 373); Welfare Worker (p 436); Youth Worker (p 442).

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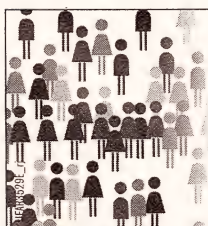
\*Conditions apply

### Company Secretary

Company secretaries make sure that the company complies with Acts of Parliament and government regulations, and that decisions of the board of directors are implemented.

Company secretaries may perform the following tasks:

- direct the business affairs of the company by implementing the decisions of the board of directors
- act as advisers to the directors of the company
- handle company share transactions such as issuing new shares, arranging for the payment of dividends and observing legal requirements
- liaise with auditors, lawyers, tax advisers, bankers and shareholders



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- attend meetings and take minutes of proceedings
- prepare reports, budgets and forecasts
- negotiate the terms of new business contracts
- assess and arrange insurance cover for the company
- administer the company's superannuation policy
- make sure that all returns required by the Corporations Law are made to the Australian Securities and Investment Commission (ASIC)
- make sure the requirements of the Income Tax Act are met
- make sure the company meets its compliance obligations under relevant laws and the requirements of regulatory authorities
- represent the company in dealings with other companies, banks and shareholders
- supervise financial administration, including the preparation of financial statements and budgets.

#### Specialisation

**Compliance Officer** - investigates and reports on financial, operational and managerial processes, systems and outcomes to ensure an organisation's compliance with legislative and regulatory requirements. They also assist in business process reviews, risk assessments, and reporting against outcomes.

#### Personal Requirements

- able to analyse and solve problems
- good organisational skills
- aptitude for working with computers and figures
- discretion when dealing with confidential information
- good communication and interpersonal skills
- able to work independently or as part of a team.

#### Education and Training

You can work as a company secretary without formal qualifications. However, entry to this occupation may be improved if you have qualifications in business, commerce, accounting, finance or law. Degrees in these disciplines are widely available.

To get into these courses you usually need to gain your VCE with English and mathematics.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or the universities you are interested in for further information.

#### Additional Information

The accredited Graduate Diploma in Applied Corporate Governance, offered by Chartered Secretaries Australia, is the only program designed specifically as the basis for a career as a company secretary. The course duration and content vary depending on qualifications already held by candidates. Entry to the course requires completion of an approved degree qualification.

#### Employment Opportunities

Company secretaries are employed by organisations that are registered as a company under the legal requirements of the Corporations Act. Promotion to company secretary is usually through the legal, accounting or other administrative sections of companies, leading to assistant secretary and company secretary. Employment and promotion prospects are enhanced for those who gain postgraduate qualifications and computer skills.

Some accountants who work in public practice also handle the professional secretarial work of a number of small companies, for each of which they are the company secretary.

Demand for company secretaries is influenced by the general level of economic activity, the instability of certain industry sectors and the level of changes in company law.

#### For Further Information

- Chartered Secretaries Australia Ltd (National Office)  
☎ (02) 9223 5744 ✉ [education@CSAust.com](mailto:education@CSAust.com)  
🌐 [www.CSAust.com](http://www.CSAust.com)

#### Related Jobs

Accountant (p 47); Actuary (p 52); Arts Administrator (p 76); Economist (p 154); Management Consultant (p 253); Office Administrator (p 300).

## Computer Engineer

Computer engineers are involved in the installation, repair and servicing of computers and associated equipment, or peripherals. They may sometimes be described as information technology (IT) hardware technicians, service engineers or computer systems engineers.

Computer engineers may perform the following tasks:

- devise and undertake a regular service program, including support of operating systems
- analyse problems and develop and implement solutions
- provide input on matters associated with site preparation and installation of large computer systems
- install cables for computer networks
- assist staff in establishing the computer hardware and peripherals required to run IT systems
- manage projects and supervise staff (in senior computer engineering roles).

#### Specialisations

**Hardware Design Engineer** - plans, designs, constructs and maintains the hardware equipment of computers. They may also monitor the development of hardware according to design, and carry out repairs and testing of computer equipment and peripherals.

**Network/Systems Engineer** - designs, installs, analyses and implements computer systems/networks. They may also make sure that the existing network is effective, and work out how it should evolve to meet new requirements of the organisation or business.

**Software Engineer** - creates, maintains and modifies computer and software programs such as operating systems, communications software, utility programs, compilers and database handlers. They may also evaluate new programming tools and techniques and analyse current software products.

#### Personal Requirements

- able to understand and communicate with a wide variety of people
- able to work as part of a team
- logical approach to work
- self-reliant and able to work independently
- active interest in maintaining personal technical skills and knowledge
- able to investigate, identify and solve problems quickly and efficiently
- enjoy electronics, computers and electro-mechanical equipment
- good customer service and public contact skills
- able to make informed decisions on a wide range of complex business and technical issues.

#### Education and Training

To become a computer engineer you usually have to study engineering at university with a major in computer engineering. To get into the courses below you usually need to gain your VCE.

Prerequisite subjects, or assumed knowledge, in one or more of



English, mathematics and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *La Trobe University - Bundoora Campus:*

Bachelor of Computer Systems Engineering, 4 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Computer Systems Engineering, 4 years full time or equivalent

Bachelor of Software Engineering, 4 years full time or equivalent

##### *RMIT University - City Campus:*

Bachelor of Engineering (Computer and Network Engineering), 4 years full time

Bachelor of Software Engineering, 4 years full time

##### *Swinburne University of Technology - Hawthorn Campus:*

Bachelor of Engineering (Electronics and Computer Systems), 4 years full time or equivalent

##### *University of Melbourne - Parkville Campus:*

Bachelor of Science (Software Systems), 3 years full time or equivalent, followed by the Master of Engineering (Software), 2 years full time

##### *Victoria University - Footscray Park Campus:*

Bachelor of Engineering (Electrical and Electronic Engineering), majoring in engineering (computer systems), 4 years full time

#### Additional Information

Membership of the Australian Computer Society is available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

#### Employment Opportunities

Computer engineers can work in IT-specific industries, which can be large or small, as well as in other industries requiring IT expertise. Computer engineers are often employed by equipment vendors and work closely on client hardware installation and general product support. With experience and sufficient start-up money there are opportunities for self-employment.

#### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)

#### Related Jobs

Analyst (Information Technology) (p 65); Business Systems Analyst (p 98); Computer Systems Auditor (p 125); Electronics Engineer (p 162); Information Technology Educator (p 228); Information Technology Support Technician (p 229); Systems Designer (Information Technology) (p 390).

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## Computer Systems Auditor

Also known as Information Systems Auditor.

Computer systems auditors are involved in the design and monitoring of control systems which ensure the accuracy and security of data. They also review an organisation's computing environment and the use of their computer facilities.

Computer systems auditors provide managers with expert opinions about the reliability of results and operations of computer systems. It is essential that computer systems auditors understand both the accounting and information technology implications of computer systems.

Computer systems auditors may perform the following tasks:

- analyse information processing systems to assess their completeness, accuracy, validity and efficiency
- assess business systems to gauge the accuracy, completeness and timeliness of transaction processing
- review applications systems and business procedures, and assess their effectiveness in achieving desired business objectives
- participate in new system design to ensure an efficient, effective and well-controlled system
- evaluate an organisation's computing environment for effective systems software, systems development and security procedures
- check software and hardware acquisition in terms of its economic and operational efficiency
- check and report on the usage of computing facilities
- talk with data processing management and system users
- write reports and recommendations for improvement in computing facility management.

#### Personal Requirements

- interested in business
- accuracy and attention to detail
- logical and analytical
- good communication and interpersonal skills
- good leadership skills.

#### Education and Training

To become a computer systems auditor you usually have to study information technology, accounting or commerce at university. To get into these courses, you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees in information technology, accounting and/or commerce. Contact the institutions you are interested in for full details.

#### Employment Opportunities

Computer systems auditors work in a range of occupational environments. They can work in IT-specific industries, which can be large or small, as well as in industries requiring their expertise. They may work as part of a team, individually or on a freelance basis. With experience and sufficient start-up money there are opportunities for self-employment.

#### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)
- Information Systems Audit and Control Association (ISACA)  
☎ (02) 8678 1518 ✉ [administration@isaca.org.au](mailto:administration@isaca.org.au)  
🌐 [www.isaca.org.au](http://www.isaca.org.au)



## Related Jobs

Accountant (p 47); Analyst (Information Technology) (p 65); Business Systems Analyst (p 98); Computer Engineer (p 124); Information Technology Educator (p 228); Programmer (Information Technology) (p 335); Systems Designer (Information Technology) (p 390).

## Concreter

Also known as Concrete Worker.

Concreters place, spread, compact, finish and cure concrete for buildings and other structures, using hand tools and automated machinery.

Concreters may perform the following tasks:

- mix cement, gravel, sand and water to make concrete on site
- move concrete into position using a concrete pump
- place concrete into the formwork (usually temporary wood or steel moulds), making sure that it is spread and levelled, then compacted using vibrators
- operate paving and trowelling machines to float, trowel and polish the concrete surface
- create different surface textures by tamping, smoothing and shaping the concrete surface with a variety of hand tools
- cut joints into hardened concrete
- mix and apply pigments when a coloured surface is required
- dig foundation trenches if working on residential or small commercial projects.

For most jobs, concrete is mixed at a pre-mix concrete supplier's factory and delivered to the site in a pre-mix concrete truck.

Concreters usually work outside on construction sites which may be dusty and noisy. Much of their time is spent standing or kneeling and they may also have to work at heights or underground in tunnels. Concreters may travel from job to job and usually begin work very early in the morning.

Concreters may specialise as concrete finishers or concrete slab layers. There are large differences in the work done by concreters working on high-rise buildings and those working on smaller residential and commercial buildings.

There is a growing industry in pre-cast concrete where concrete elements are cast and cured in factories and then transported to the site for use.

### Personal Requirements

- physically fit
- able to lift heavy objects
- enjoy practical and outdoor work.

### Education and Training

You can work as a concreter without formal qualifications. You will probably get some informal training on the job.

### Additional Information

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and Services Integrated Framework that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

The majority of concreters are employed on building and construction sites by building and construction companies, or by sub-contractors or Group Training Organisations. A small amount of work is generated by other uses of concrete (e.g. kerbing, driveways, paths and retaining walls). With experience or formal training, labourers may progress to skilled positions.

Due to changing conditions within the construction industry such as differences in the demand and supply of various construction materials and the use of new technologies, the availability of work may vary.

### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

## Related Jobs

Bricklayer (p 93); Construction Worker (p 127); Road Worker (p 355).

## Confectioner

Also known as Chocolatier.

Confectioners mix sweeteners and other ingredients, and shape and cook confectionery including chocolate, toffee and other lollies.

Confectioners may perform the following tasks:

- examine production schedules to determine confectionery types and quantities to be made
- check the cleanliness and operation of equipment before beginning production
- weigh, measure, mix, dissolve and boil ingredients in pans
- operate equipment that refines and tempers chocolate
- assist with coating chocolate bars and preparing chocolate products
- control temperature and pressure in cookers used to make boiled sweets, starch-moulded products, caramels, toffees, nougat and chocolate centres
- operate equipment to compress sugar mixes into sweets
- check batch consistency using a stainless steel spatula or measuring equipment such as a refractometer
- sort and inspect finished or partly finished products.

With experience and sometimes further training, it is possible to progress to leading hand, supervisory or management positions.

Most confectioners work full time. Senior confectioners provide on-the-job training to lower-grade employees and coordinate work in a team environment.

### Personal Requirements

- enjoy practical and manual work
- physically fit
- neat and clean
- enjoy working in a team.

### Education and Training

To become a confectioner you usually have to complete a traineeship in Food Processing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships



section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Most confectioners are employed by confectionery manufacturers and work in factories.

The confectionery industry continues to grow as new brands and products are launched, accompanied by high levels of advertising, investment and other promotional activities.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 <http://agrifoodskills.net.au>
- Australian Industry Group (Confectionery Sector)  
✉ julia.barnes@aigroup.asn.au 🌐 [www.aigroup.com.au](http://www.aigroup.com.au)

#### Related Jobs

Baker (p 83); Food Process Worker (p 188); Pastrycook (p 311).

## Conservator

Conservators plan, organise and undertake the preservation and conservation of materials and objects in private and public collections, including libraries, archives, museums, art galleries and historical and archaeological sites.

Conservators may perform the following tasks:

- examine and evaluate the condition of objects and confirm their identification and authenticity
- organise systematic inspection of collections and prepare written and photographic reports
- advise on the optimum storage and display conditions (e.g. correct light, relative humidity, integrated pest management and temperature control) for the objects in their care
- advise on the correct methods for handling, storing, displaying and transporting works of art and artefacts
- conduct research into the material or technological nature of collections and of materials and techniques critical to their preservation or conservation
- undertake extensive research into deterioration problems within collections
- undertake conservation and restoration procedures to correct damage or control deterioration and record details of measures taken.

Conservators specialise in a range of areas including paper, paintings, photographs, social and cultural artefacts, bookbinding and archives, furniture, archaeological materials, buildings and historic sites, textiles and preventative conservation.

#### Personal Requirements

- patience and ability for fine manual work
- aptitude for science, in particular chemistry and physics
- aptitude for using computers
- attention to detail
- ability to understand and apply professional and ethical codes of conduct
- artistic and/or technical aptitude
- normal colour vision
- sensitivity to Indigenous and ethnic cultural issues
- interest in history, art history and materials technology.

#### Education and Training

To become a conservator you usually have to complete a degree in cultural heritage conservation, or complete a science, arts or fine art

degree at university with a major that is relevant to cultural materials conservation, followed by a Master of Arts (Cultural Materials Conservation) by coursework through the Centre for Cultural Materials Conservation at the University of Melbourne.

Undergraduate degrees in science, arts and fine art are widely available at universities in Victoria. Entry to these courses usually requires you to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Before enrolling in an undergraduate degree, you should consult the Centre for Cultural Materials Conservation for advice on which degrees and majors will allow you to enter their postgraduate program.

There are no courses in cultural heritage conservation available in Victoria. The following course is offered interstate.

#### Degree Courses

##### University of Canberra - Canberra Campus:

Bachelor of Cultural Heritage Conservation, 3 years full time or equivalent

#### Additional Information

Graduates may be eligible for professional membership of the Australian Institute for the Conservation of Cultural Material.

#### Employment Opportunities

Most conservators are employed in cultural institutions such as museums, libraries, art galleries, archives and historic houses. An increasing number of conservators are taking up positions in the private sector. Competition may be strong for the limited number of positions available.

#### For Further Information

- Centre for Cultural Materials Conservation ☎ (03) 8344 7989  
✉ conservation-info@unimelb.edu.au  
🌐 [www.culturalconservation.unimelb.edu.au](http://www.culturalconservation.unimelb.edu.au)
- The Australian Institute for the Conservation of Cultural Material Inc (AICCM) ✉ secretariat@aiccm.org.au  
🌐 [www.aiccm.org.au](http://www.aiccm.org.au)
- State Library of Victoria ☎ (03) 8664 7002 🌐 [www.slv.vic.gov.au](http://www.slv.vic.gov.au)
- Museum Victoria Bookings and Enquiries ☎ 13 11 02  
✉ jobs@museum.vic.gov.au 🌐 <http://museumvictoria.com.au>

#### Related Jobs

Archaeologist (p 69); Archivist (p 72); Artist (p 75); Arts Administrator (p 76); Museum Attendant (p 282); Museum Curator (p 283); Museum Officer (p 283); Picture Framer (p 321); Taxidermist (p 391).

## Construction Worker

Also known as Builder's Labourer and Labourer.

Construction workers assist tradespeople on building and construction sites by doing a range of manual labouring jobs.

Construction workers may perform the following tasks:

- unload, carry and stack building materials and place tools and equipment in position
- dig trenches using hand tools or jackhammers to break up rock and concrete, so that footings and services can be laid
- place and compact filling and quarry materials
- help to erect and dismantle scaffolding (subject to certification in some states and territories), ramps, catwalks, barricades and warning lights



- mix, pour and spread concrete
- use wheelbarrows to remove rubble and rubbish from building sites
- dismantle small structures and strip materials in preparation for new constructions
- clean surfaces for painters.

Construction workers may specialise by working with particular tradespeople as a trade's assistant, such as a plasterer's or bricklayer's labourer, or a carpenter's assistant.

With experience and/or further onsite or short-course training, they may also advance to positions such as concrete workers, doggers, riggers, scaffolders or steel fixers.

Construction workers mostly work outdoors.

**Construction Project Manager** - is responsible for coordinating the construction of large building projects such as hotels, factories, office blocks, home unit developments, schools, hospitals and large housing developments. They make and interpret plans, supervise and direct people working on specific projects, control costs and payments and negotiate with building owners and subcontractors.

#### Personal Requirements

- physically fit
- enjoy practical and outdoor work
- able to work as part of a team
- able to work at a constant pace
- able to follow precise directions.

#### Education and Training

You can work as a construction worker without formal qualifications. You will probably get some informal training on the job.

You can also become a construction worker through a traineeship in Civil Construction. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

When working at heights, industry standards require construction workers to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To obtain a licence to Perform High Risk Work, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, and keep an approved logbook to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence for performing high risk work you must be at least 18 years of age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction and Plumbing Services or Resources and Infrastructure Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Construction workers work for large construction firms and smaller building subcontractors. They work on the construction of a range of types of buildings, including residential houses, apartment complexes,

shopping centres, offices, hotels, factories, tourist resorts, hospitals and schools. Construction workers also work on heavy industrial or civil construction sites, road, tunnel and shaft excavations, demolition sites or local government works.

On completion of a job, construction workers may have to apply to new sites for their next job. If they work for a civil, building or trade subcontractor (e.g. bricklayer), new work sites may be organised for them. Employment opportunities can vary greatly in line with trends in the civil or building and construction industries.

#### For Further Information

- Australian Institute of Building (National Office) ☎ (02) 6247 7433  
✉ [education@aib.org.au](mailto:education@aib.org.au) 🌐 [www.aib.org.au](http://www.aib.org.au)
- Construction, Forestry, Mining and Energy Union - Construction and General Division (VIC) ☎ (03) 9341 3444  
✉ [queries@vic.cfmeu.asn.au](mailto:queries@vic.cfmeu.asn.au) 🌐 [www.cfmeuvic.com.au](http://www.cfmeuvic.com.au)
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) 🌐 [www.mbav.com.au](http://www.mbav.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

#### Related Jobs

Bricklayer (p 93); Concreter (p 126); Crane Operator (p 136); Dogger (p 151); Rigger (p 354); Road Worker (p 355); Scaffolder (p 361); Steel Fixer (p 384).

## Consumer Scientist

Consumer scientists measure and interpret consumer needs and preferences, making sure that these are taken into account in the design, production, delivery and use of products and services.

Consumer scientists may perform the following tasks:

- design and manage public nutrition education and promotion programs
- understand and use specific principles to solve problems related to consumer needs and preferences in the production and consumption of products and services
- analyse and interpret statistically based data to provide advice on the quality of products
- design and manage sensory evaluation projects
- design and manage food styling projects for product promotion
- measure and interpret consumer behaviour in the choice, purchase and use of products and services
- develop policy and analyse issues relating to consumers
- conduct social research to make predictions about consumer trends.

#### Personal Requirements

- good oral and written communication skills
- good analysis and problem-solving skills
- creativity and good design skills
- sensitivity in dealing with a wide range of people and issues
- good leadership skills.

#### Education and Training

To become a consumer scientist you usually have to study consumer science at university. To get into the course below you usually need to gain your VCE with English. Contact the university for more information as requirements may change.

Nutrition, health science, food science or food technology degrees may also assist your entry to this occupation. Refer to the entries for Home Economist and Food Technologist for course details.



## Degree Courses

### RMIT University - City Campus:

Bachelor of Science (Applied Science), specialising in consumer science, 3 years full time

### Additional Information

Graduates may be eligible for membership of the Home Economics Institute of Australia, Textiles Institute of Australia and the Society of Consumer Affairs Professionals.

### Employment Opportunities

Consumer science graduates are employed by manufacturing and retailing industries, and government, consumer and community-based organisations. Consumer scientists may be employed as consumer advisers, social researchers, nutrition educators and advisers, sensory evaluation specialists, product development team leaders, quality assurance program managers, food stylists, public relations experts, and designers and managers of independent living skills programs for disadvantaged groups in the community.

### For Further Information

- Program Coordinator - Consumer Science, RMIT University  
☎ (03) 9925 2718 ✉ anne.sibbel@rmit.edu.au
- Home Economics Institute of Australia (VIC) ☎ (03) 9888 2757 or 1800 446 841 (FREECALL) ✉ heiaiv@heia.com.au  
🌐 www.heia.com.au/heiaiv

### Related Jobs

Dietitian (p 147); Food Technologist (p 189); Health Promotion Officer (p 210); Home Economist (p 213); Nutritionist (p 298); Teacher - Secondary (p 397).

## Contact Centre Operator

Also known as Call Centre Operator.

Contact centre operators answer customer telephone enquiries through various channels, including telephone, SMS or email, about products and services and promote an organisation's goods and services.

Call centre operators may perform the following tasks:

- answer incoming calls and assist customers in their specific enquiries
- make outbound sales and research calls
- create further interest in the company's services by inviting customers to use all services and products offered
- provide a high level of personalised customer service
- update databases with changes to details and status of each customer or prospective customer
- arrange the despatch of products, information kits or brochures to clients and interested parties
- follow up client calls with clerical duties, including faxing, filling out paperwork, doing credit reference checks and liaising with other departments.

With experience and sometimes further training, it is possible to progress to supervisory positions.

Contact centre operators can work in contract call centres (a call centre that does work for other organisations), for a utility (water or energy organisation), for an internal centre within an organisation or on help desks in a variety of industries. Given the diversity of the sectors using contact centre operators, duties undertaken can be as varied as credit management, billing enquiries or sales.

Contact centre operators are employed on a full-time, part-time or casual basis and may be required to do shift and weekend work. Some centres allow staff to work from home.

### Personal Requirements

- excellent communication skills
- pleasant and friendly manner
- enjoy talking to people
- aptitude for working with computers
- high level of motivation
- able to work as part of a team
- able to work quickly and accurately.

### Education and Training

You can work as a contact centre operator without formal qualifications. You will probably get some informal training on the job, although there are a number of contact centre courses available that may assist you in gaining employment. Entry to the certificate courses below usually requires at least Year 10.

You can also become a contact centre operator through a traineeship in Customer Contact. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

*Chisholm Institute of TAFE - Dandenong Campus:*

Certificate II in Customer Contact

Certificate III in Customer Contact

*Gordon Institute of TAFE - Geelong City Campus:*

Certificate III in Customer Contact

*Kangan Institute of TAFE - Essendon Campus:*

Certificate III in Customer Contact

*South West Institute of TAFE - Warrnambool Campus:*

Certificate III in Customer Contact

*Sunraysia Institute of TAFE - Mildura Campus:*

Certificate III in Customer Contact

*Swinburne University (TAFE Division) - Prahran Campus:*

Certificate III in Customer Contact

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Telecommunications Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

To work in a specialist contact centre you may need to have qualifications in the relevant field, for instance nursing or information technology.

### Employment Opportunities

Contact centre operators work in a diverse range of industries, such as banking, insurance, tourism and travel, government agencies, utilities and telecommunication companies.

Contact centre operators who have undertaken appropriate training or who have suitable experience are highly regarded and sought by employers.

### For Further Information

- Australian Teleservices Association ☎ (02) 9906 6163 or 1800 025 727 (FREECALL) ✉ ata@ata.asn.au  
🌐 www.ata.asn.au
- Optus Communications - Resourcing Centre ☎ 1300 300 163 (Toll Free) 🌐 www.optus.com.au/careers
- Telstra Switchboard ☎ 1300 368 387 (Toll Free)  
✉ telstra.careers@team.telstra.com  
🌐 http://careers.telstra.com

### Related Jobs

Radio Despatcher (p 345); Telemarketer (p 401).



## Conveyancer

Also known as Property Conveyancer and Settlement Agent.

Conveyancers prepare the documentation required for, and attend to the settlement of, the purchase and sale of real estate.

Conveyancers must know about land division, surveying, property development, property management, strata administration, insurance, taxation, business analysis, investment and contracts.

Conveyancers may perform the following tasks:

- prepare and advise on the contract for the sale of real estate
- conduct title searches and make enquiries of various government departments
- prepare and advise on mortgage documentation
- attend to exchange-of-contracts and settlements procedures
- prepare and advise on lease documentation.

Conveyancers may communicate with clients, land agents, banks, building societies, finance companies and many other organisations, including government departments.

### Personal Requirements

- good communication skills
- good organisational skills
- integrity and sound judgment.

### Education and Training

To become a conveyancer you usually have to complete an accredited course in conveyancing and possess two years of practical experience.

Entry to the diploma courses below usually requires Year 12. To get into the degree course you usually need to gain your VCE with English. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

### Diploma Courses

*Northern Melbourne Institute of TAFE - Preston Campus:*

Diploma of Financial Services (Conveyancing)

*RMIT University (TAFE Division) - City Campus:*

Diploma of Financial Services (Conveyancing)

*Swinburne University of Technology (TAFE Division) - Wantirna Campus:*

Diploma of Financial Services (Conveyancing)

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Diploma of Financial Services (Conveyancing)

### Degree Courses

*Victoria University - City Queen and Footscray Park Campuses:*

Bachelor of Laws, majoring in law (conveyancing), 4 years full time or equivalent

### Additional Information

Licensing and/or registration of conveyancers is required in NSW, Victoria, NT, SA, Tasmania and WA.

### Employment Opportunities

Conveyancers are generally self-employed or work in conveyancing businesses, law firms, financial institutions, banks, building societies and some government departments.

Conveyancers employed by financial institutions generally specialise in finance, and must have a sound knowledge of land transactions.

Conveyancers who are self-employed may also need to maintain accurate records related to running an office, such as accounts.

### For Further Information

- Australian Institute of Conveyancers (VIC Division)

☎ (03) 9876 8221 ✉ admin@aicvic.com.au

🌐 www.aicvic.com.au

### Related Jobs

Accountant (p 231); Insurance Broker (p 231); Insurance Officer (p 232); Law Clerk (p 243); Lawyer (p 244); Settlement Clerk (p 367); Valuer (p 424).

## Cook

Cooks prepare and cook food.

Cooks may perform the following tasks:

- check food to ensure its quality
- regulate temperatures of ovens, grills and other cooking equipment
- prepare food for cooking
- cook food by a range of methods (e.g. baking, braising, frying, roasting or steaming)
- divide food into portions and make sure that the food is well presented
- clean food preparation areas and equipment
- store food in temperature-controlled facilities
- receive and store supplies
- make sure kitchen is hygienic and functional
- plan menus and estimate food requirements
- prepare food to meet special dietary requirements
- train and supervise other staff.

The range of duties carried out by cooks varies depending on where they work. In hotels, clubs, restaurants and take-away food outlets, cooks often specialise in preparing and cooking a particular type of food (e.g. fried chicken, pizza or barbecued meat). They may also specialise in national cuisine (e.g. Thai, Vietnamese, French or Italian). Other specialisations include entrees, desserts, international and pastry cooking.

With experience and further training, qualified cooks may be promoted to supervisory positions.

Cooks may be required to work shifts, including weekends and public holidays. The work may be stressful, especially at peak hours of the day.

### Personal Requirements

- a high level of personal cleanliness
- able to plan your time and work under pressure
- good communication skills
- punctuality
- flexibility to perform shift work (sometimes on a 24-hour rotating roster)
- able to stay calm in difficult situations
- able to work well in a team.

### Education and Training

You can work as a cook without formal qualifications. You will probably get some informal training on the job.

You can also become a cook through a traineeship in Hospitality (Kitchen Operations) or an apprenticeship in Hospitality (Commercial Cookery). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships and apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Food Processing or Hospitality Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.



## Employment Opportunities

Cooks are employed by hotels, motels, restaurants, function centres, catering companies, clubs, cafes, staff restaurants, cafeterias, hospitals, flight catering centres, seagoing vessels, food processing factories and large boarding schools.

The continued growth of the tourism and hospitality industry has created a strong current demand for competent kitchen staff. Movement between employers within the industry may be required in order to gain experience and promotion.

### For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ aha@aha.org.au 🌐 www.aha.org.au
- Service Skills Australia 🌐 www.servicesskills.com.au
- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au

### Related Jobs

Baker (p 83); Butcher (p 99); Caterer (p 108); Chef (p 109); Kitchenhand (p 240); Pastrycook (p 311); Seafood Processor (p 363); Ship's Catering Attendant (p 369); Smallgoods Maker (p 373).

## Cooper

Coopers make, assemble and repair wooden casks, barrels, vats, buckets and tubs for holding wet or dry goods.

Coopers may perform the following tasks:

- work out the size, capacity and materials requirements from the job specifications
- select wood and cut, shape, smooth and taper boards to form staves (the wooden boards of the barrels), or use prepared wooden parts
- assemble staves into rough shapes inside temporary hoops, using hammers and hoop drivers
- apply hot water or steam to staves to make them pliable
- cut, bend and rivet metal strips or wooden pieces to form hoops and fit them in position around barrels or casks, drawing staves tightly together
- draw ends of staves together using trussing machines, cut grooves inside rims of staves, make up heads and fit into grooves
- smooth surfaces
- repair damaged staves by removing and replacing them
- check for leaks and insert sealants.

### Personal Requirements

- enjoy practical and manual work
- good hand-eye coordination
- good eyesight (may be corrected)
- free from respiratory complaints.

### Education and Training

To become a cooper you usually have to train under an experienced cooper already working in the trade. It is possible to develop skills useful to this job through an apprenticeship in Furniture Making (Wood Machining). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Employment Opportunities

Coopers work in cooperages and wineries. Coopers are also often self-employed.

Most employment opportunities are in the wine growing regions of SA and Victoria.

### For Further Information

- Manufacturing Skills Australia 🌐 www.makeit.net.au
- Bendigo Coopers ☎ (03) 5449 3581  
✉ graham@bendigocoopers.com.au

### Related Jobs

Cabinetmaker (p 99); Carpenter (p 105); Joiner (p 238); Wood Machinist (p 439).

## Copywriter

Copywriters interpret how a potential market will react to an advertising proposal, and write material to advertise products or services.

Copywriters may perform the following tasks:

- study products or services to decide the main selling features
- assist art directors to create ideas for advertising and promotion, often thinking up names for products and the slogans that appear on the packaging and other promotional material
- plan and write promotional material in such a way as to appeal to the people most likely to buy the product, and submit copy for approval
- write advertisements for newspapers, magazines, radio, television, cinema screens, billboards, catalogues, displays, websites, blogs and social media
- write brochures, annual reports, documents, speeches and other sales and promotional material
- discuss theme, style and length of copy with advertisers or management, to determine the most suitable approach.

Copywriters may specialise as continuity writers who write scripts for announcers to provide continuity for radio and television broadcasts (see description for Writer).

With experience and sometimes further training, copywriters may become creative directors in advertising agencies, where they supervise the work of staff in the design area, or advertising managers in retail or manufacturing firms.

### Personal Requirements

- an observant and inquisitive approach to people and their environment
- an insight into human behaviour and what motivates people
- creativity and originality
- able to analyse a situation quickly
- able to pick out relevant facts and emphasise them
- able to write clearly
- good concentration
- technical ability when writing for all forms of media
- able to work under pressure.

### Education and Training

You can work as a copywriter without formal qualifications. You will probably get some informal training on the job. Artistic and creative abilities are essential. However, entry to this occupation may be improved if you have diploma or degree qualifications. Relevant diploma or degree areas include advertising, marketing, communications, journalism, media studies and English literature. These courses are offered at most tertiary institutions in Victoria.



To get into these courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Costs, duration and entry requirements may vary between courses. See the online entry for Copywriter at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

Although there are no formal education requirements, people who want to become a copywriter will be required to provide a portfolio of creative work to demonstrate their creative flair.

The Australasian Writers and Art Directors Association (AWARD), runs a 16-week course each year which is highly regarded in the advertising industry. For more information visit the website at [www.awardschool.com.au](http://www.awardschool.com.au).

#### Employment Opportunities

Copywriters are employed by advertising agencies, radio and television stations, advertising departments of retail, wholesale and manufacturing firms, and some government departments. Some are self-employed as freelance copywriters.

Competition for entry positions is very strong.

#### For Further Information

- The Communications Council ☎ (02) 8297 3800  
✉ [hello@communicationscouncil.org.au](mailto:hello@communicationscouncil.org.au)  
🌐 [www.communicationscouncil.org.au](http://www.communicationscouncil.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Advertising Account Executive (p 55); Editor (p 155); Journalist (p 239); Media Presenter (p 266); Multimedia Developer (p 281); Public Relations Officer (p 339); Publisher (p 342); Writer (p 441).

## Correctional Officer

Also known as Custodial Correctional Officer and Prison Officer.

Correctional officers are responsible for the custody, care, supervision and rehabilitation of prisoners in prisons and correctional centres.

They are increasingly involved in the care of prisoners and their welfare needs.

Correctional officers may perform the following tasks:

- search prisoners and cells for illegal articles, drugs, valuables and weapons
- lock prisoners in cells
- observe the conduct and behaviour of prisoners to maintain control, discipline and security within the correctional centre
- advise if prisoners need special care, such as a visit to a psychiatrist, psychologist or social worker
- inspect doors, gates, grilles, locks and window bars to make sure they are secure
- supervise prisoners during meals, recreation periods, sport and work assignments
- patrol assigned areas and report to supervisors or other workers any breach of rules, unsatisfactory attitudes or adjustment problems of prisoners
- serve meals to prisoners confined to cells
- organise clothing, reading material, toiletries or other items needed by prisoners

- participate in the reception, induction and discharge of prisoners in accordance with procedures
- give directions to visitors
- perform escort duties of prisoners, both within the centre and externally when required
- prepare a variety of reports including admission and incident reports
- assist in the risk/needs assessment of prisoners and have input into their case and sentence management
- provide leadership and act as a role model to assist the rehabilitation process
- help offenders to seek rehabilitation and return to the community by providing basic counselling and supervision
- provide first aid.

Correctional officers can be required to work shifts including weekends and public holidays and may be transferred anywhere within their state or territory. In some states, case management is an important aspect of their work. This gives individual officers the chance to work with small groups of 10 to 15 prisoners within a re-education and rehabilitation program.

Correctional officers also specialise in areas such as dog squads, transport and escort of offenders, and field supervision on work camps.

#### Personal Requirements

- enjoy working with people
- normal vision
- good interpersonal skills, including fairness, sensitivity and patience
- assertiveness
- self-discipline
- a mature, responsible attitude towards managing people
- able to resolve conflict
- physically fit
- able to stay calm in stressful situations
- Australian citizenship or permanent residency.

#### Education and Training

You can become a correctional officer without formal qualifications. You will need to complete an initial assessment that includes a telephone interview, suitability testing and a half-day in-person assessment at an assessment centre, which includes a behavioural interview and a group exercise.

If your application is successful, you will join Corrections Victoria and undertake a 35-day training program covering indigenous awareness, offender management, professional boundaries, prison programs, substance abuse/detection, human rights, case management and conflict management. After completing the initial training, you will begin work under the supervision of an experienced officer.

The Department of Justice, Corrections Victoria, is a Registered Training Organisation and all correctional officers are provided with an opportunity to complete a Certificate III in Correctional Practice. Contact Corrections Victoria for further information.

#### Additional Information

You must pass a National Police check to become a correctional officer.

#### Employment Opportunities

Correctional officers are employed by Corrections Victoria, which administers the public and private prison network in Victoria. Prisons are located in metropolitan and country areas. Competition for available positions is strong.



Correctional officers commence at base-grade officer level. Once trainee correctional officers achieve full correctional officer status, further opportunities for advancement exist as operational supervisors, case management coordinators, custodial specialists and unit managers.

#### For Further Information

- Corrections Victoria ☎ (03) 8684 6600  
✉ [corrections@justice.vic.gov.au](mailto:corrections@justice.vic.gov.au) 🌐 [www.justice.vic.gov.au](http://www.justice.vic.gov.au)

#### Related Jobs

Criminologist (p 137); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Probation and Parole Officer (p 333); Security Officer (p 364).

## Counsellor

Also known as Family Counsellor and Marriage Counsellor.

Counsellors assist people to identify and define their emotional issues and better understand themselves by explaining options, setting goals, providing therapy and helping them to take action.

Counsellors may perform the following tasks:

- work with clients to find solutions to emotional, mental and lifestyle problems
- act as facilitators in group sessions
- work with other professionals such as medical practitioners, psychologists and social workers as part of a health management team
- act as intermediaries in conflict resolution.

Counsellors may specialise in working with a particular group, such as people from non-English speaking backgrounds, Aboriginal and Torres Strait Islander people or single parents. Alternatively, they may specialise in a service area such as health, drug and alcohol problems, accommodation, relationships, employment, grief and loss, stress management, child development or abuse issues.

#### Specialisation

**Drug and Alcohol Counsellor** - provides support and treatment for people with drug and alcohol dependency problems, develops strategies that assist them to set goals and affect and maintain change, and provides community education.

#### Personal Requirements

- empathetic and caring
- good communication and listening skills
- maturity.

#### Education and Training

You can work as a counsellor without formal qualifications. However, entry to this occupation may be improved if you have qualifications.

Training is available at diploma and degree level. Entry to the diploma course below usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE with English. Applicants may also be required to attend an interview. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Diplomas in community work and alcohol and drug issues are available from TAFE institutes and Registered Training Organisations throughout Victoria. Psychology and social work degrees are also widely available at universities in Victoria. Refer to the entries for Psychologist and Social Worker for more information.

#### Diploma Courses

*Australian Institute of Professional Counsellors - Distance Education:*  
Diploma of Counselling

#### Degree Courses

*Australian Catholic University - Melbourne Campus:*

Bachelor of Counselling, 3 years full time or equivalent

*Australian Institute of Professional Counsellors - Distance Education:*

Bachelor of Counselling, 3 years full time or equivalent

*Monash University - Gippsland Campus:*

Bachelor of Community Welfare and Counselling, 3 years full time or equivalent

*Tabor College - Melbourne:*

Bachelor of Arts (Counselling), 3 years full time or equivalent (you usually must be at least 18 years of age to begin this course)

#### Employment Opportunities

Many counsellors are self-employed in their own counselling practices.

Counsellors may also be employed by community service organisations, hospitals, schools, clinics and government departments. Large corporations and organisations often employ counsellors who specialise in workplace or organisational counselling.

Counsellors have a range of good employment prospects but competition is often strong for available work.

#### For Further Information

- Australian Counselling Association 🌐 [www.theaca.net.au](http://www.theaca.net.au)
- Australian Institute of Professional Counsellors (VIC)  
☎ (03) 9670 4877 or 1800 622 489 (FREECALL)  
✉ [aipcvic@aipc.net.au](mailto:aipcvic@aipc.net.au) 🌐 [www.aipc.net.au](http://www.aipc.net.au)
- Relationships Australia (VIC) ☎ (03) 9261 8700  
✉ [kew@rav.org.au](mailto:kew@rav.org.au) 🌐 [www.relationships.com.au](http://www.relationships.com.au)

#### Related Jobs

Art Therapist (p 75); Career Adviser (p 104); Community Worker (p 122); Midwife (p 274); Nurse - Registered (p 296); Probation and Parole Officer (p 333); Psychologist (p 337); Social Worker (p 373); Youth Worker (p 442).

## Study Counselling

[www.tabor.vic.edu.au](http://www.tabor.vic.edu.au)  
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## Court Officer

Also known as Clerical Officer (Local Courts).

Court officers assist in the effective operation of courts.

Court officers may perform the following tasks:

- announce the beginning and end of court sessions
- call on witnesses and administer the prescribed oath to jurors and witnesses
- administer the jury roster, open hearing rooms and post court lists on notice boards
- keep records of court processes served
- enforce court decisions by executing court orders and serving legal orders and documents, such as summonses or subpoenas
- maintain the orderly conduct of court and hearing rooms and adjacent areas
- attend to judges or magistrates, escorting them from chambers to the courtroom
- record and protect exhibits tendered in court and pass them to participants during the hearing
- maintain security, care and control of jury panels
- liaise with the judiciary, police department and legal profession, and advise the public on legal procedures and practices
- run the court registries and maintain the court files
- open and close court and hearing room proceedings
- organise furniture for court and hearing rooms
- allocate rooms for use by legal practitioners
- prepare audiovisual equipment for court and hearing rooms
- escort prisoners to and from courtrooms
- summon potential jurors to court.

Court officers are required to liaise between the magistracy, legal practitioners and members of the public.

### Specialisations

**Bailiff** - attends to the needs of the jury throughout a trial and 'swears in' the jurors and witnesses during court proceedings. They may also serve writs, summonses and other court orders.

**Clerk of Court** - prepares documentation of court proceedings, actions and decisions, attends court sessions and assists judges and magistrates.

**Court Registrar** - prepares the daily court list, maintains court records and handles the accounting and distributing of money paid to the court.

**Sheriff** - is responsible for providing court security and support services, manages the jury system and serves the orders issued by courts and tribunals. They also undertake administrative tasks such as processing people appearing before the courts for trial or sentencing.

### Personal Requirements

- high level of maturity
- good character
- able to communicate with a range of people
- aptitude for clerical duties
- feel comfortable in a legal environment
- able to exercise a high level of responsibility.

### Education and Training

You can work as a court officer without formal qualifications. You will probably get some informal training on the job. However, the courts prefer you to gain your VCE. Completion of a course in legal studies may improve entry to this occupation.

To work as a court officer in the courts of Victoria you must be a state public servant. See the Public Servant - State Government entry for details. Specialised training is given on the job.

Entry to the diploma and advanced diploma courses below usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE with English. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

### Diploma Courses

*TAFE Victoria - various locations:*

Advanced Diploma of Business - Legal Practice

*Chisholm Institute of TAFE - Cranbourne and Frankston Campuses:*

Advanced Diploma of Justice

*Holmesglen Institute of TAFE - Waverley Campus:*

Diploma of Justice

Advanced Diploma of Justice

*Kangan Institute of TAFE - Broadmeadows and Essendon Campuses:*

Diploma of Justice

Advanced Diploma of Justice

*Northern Melbourne Institute of TAFE - Preston Campus:*

Diploma of Justice

*RMIT University (TAFE Division) - City Campus:*

Diploma of Justice

Advanced Diploma of Justice

*Victoria University (TAFE Division) - Footscray Nicholson and St*

*Albans Campuses:*

Diploma of Legal Services (entry via Certificate IV in Legal Services)

### Degree Courses

*Deakin University - Geelong Campus and Distance Education:*

Bachelor of Criminology, majoring in legal studies, 3 years full time or equivalent

*La Trobe University - Bundoora Campus:*

Bachelor of Arts, majoring in legal studies, 3 years full time or equivalent

Bachelor of Legal Studies, 3 years full time or equivalent

*Monash University - Gippsland Campus:*

Bachelor of Arts (Criminal Justice), 3 years full time or equivalent

*RMIT University - City Campus:*

Bachelor of Arts (Criminal Justice Administration), 3 years full time or equivalent

Bachelor of Social Science (Legal and Dispute Studies), 3 years full time or equivalent

*Victoria University - Footscray Park Campus:*

Bachelor of Arts (Criminal Justice Studies), 3 years full time or equivalent

Bachelor of Arts (Legal Studies), 3 years full time or equivalent

### Employment Opportunities

Most court officers work in the metropolitan area, although there are some positions in country areas. Court officers are employed by state and federal governments in courts such as the Federal Court, Supreme Court, Family Law Courts and District and Local Courts, as well as some tribunals.

There are some opportunities for advancement for experienced court officers in administration and management within the court systems, as well as in the state and Australian public services.

There are opportunities for temporary and casual work in this field.

### For Further Information

- Education Liaison Officer, Law Institute of Victoria

☎ (03) 9607 9311 ✉ [lawinst@liv.asn.au](mailto:lawinst@liv.asn.au) ~🌐 [www.liv.asn.au](http://www.liv.asn.au)



- Human Resources, Supreme Court of Victoria ☎ (03) 9603 6287  
🌐 [www.supremecourt.vic.gov.au](http://www.supremecourt.vic.gov.au)
- Juries Commissioner's Office, Supreme Court of Victoria  
☎ (03) 8636 6811 🌐 [www.supremecourt.vic.gov.au](http://www.supremecourt.vic.gov.au)

#### Related Jobs

Debt Collector (p 141); Law Clerk (p 243); Lawyer (p 244); Office Administrator (p 300); Public Servant - State Government (p 341).

### Coxswain

Coxswains manage the operation of small commercial marine vessels, such as fishing boats, ferries, water taxis, jet boats, yachts, catamarans and tourist craft.

Coxswains may perform the following tasks:

- manoeuvre and navigate small vessels
- consult weather authorities before planning a voyage
- give instructions to the crew
- communicate with passengers
- update vessel logbooks
- assist in mooring and unmooring vessels
- monitor condition and seaworthiness of vessels
- transmit and receive information by marine radio or telephone
- respond to emergency situations
- use navigational information and techniques to conduct a safe passage
- service propulsion systems, low voltage electrical systems and auxiliary systems
- carry out refueling and fuel transfer operations
- operate pumping systems and inboard diesel engines.

Coxswains may operate vessels up to 12 metres in length in waters up to 15 nautical miles seaward off the coast. Those who wish to operate larger vessels further from the coast will need to gain additional qualifications.

#### Specialisation

**Fishing Charter Operator** - manages a fishing charter business including work as a coxswain.

#### Personal Requirements

- willing to spend time at sea
- able to lead and manage a crew
- good eyesight
- good health and able to pass a medical examination.

#### Education and Training

To become a coxswain you usually have to complete a traineeship in Transport and Distribution (Costal Maritime Operations - Coxswain). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

To work as a coxswain you will need to gain a Certificate of Competency from Marine Safety Victoria. To do this you must be at least 18 years of age, complete minimum sea service requirements, provide a current senior first aid certificate, and meet specific medical and eyesight standards. You must also gain a Marine Radio Operator's Certificate of Proficiency and a shipboard safety certificate. Visit the Marine Safety Victoria website for more information.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Maritime and Seafood Industry Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Coxswains usually start their careers in the maritime industry as deckhands before gaining enough experience to sit the Coxswain Certificate of Competency test. With further training and experience, coxswains may work in the deck department of near coastal or blue water vessels.

#### For Further Information

- Australian Maritime Safety Authority (Head Office)  
☎ (02) 6279 5000 ✉ [marine.qualifications@amsa.gov.au](mailto:marine.qualifications@amsa.gov.au)  
🌐 [www.amsa.gov.au](http://www.amsa.gov.au)
- Australian Shipowners Association (Head Office)  
☎ (03) 9647 6000 ✉ [admin@asa.com.au](mailto:admin@asa.com.au)  
🌐 [www.asa.com.au](http://www.asa.com.au)
- Careers at Sea 🌐 [www.careersatsea.com.au](http://www.careersatsea.com.au)
- Transport Safety Victoria, Maritime Division ☎ (03) 9655 3399  
🌐 [www.marinesafety.vic.gov.au](http://www.marinesafety.vic.gov.au)

#### Related Jobs

Deck Hand (p 141); Integrated Rating (p 233); Marine Engineer (p 255); Marine Surveyor (p 256); Navy Officer (p 291); Ship's Master (p 369); Ship's Officer (p 370).

### Craftsperson

Also known as Craft Practitioner.

Craftspersons design, make and repair objects which have both functional and artistic qualities, working in wood, metal, glass, leather, ceramics, textiles and other materials.

A craftsperson may perform the following tasks:

- design the style and shape of objects
- use and manipulate materials to make objects according to the design
- finish objects to enhance their artistic and/or practical qualities
- repair damaged or defective craft objects.

#### Specialisations

**Fibre Textile Worker** - may work with weaving, felting, embroidery, stitchery, quilting, dyeing, printing and garment design to create articles of clothing, finishings and decorative items. They may also do lacemaking, tapestry, collage, basketry, knitting, crochet, rugmaking, knotting, bookbinding and fabric painting.

**Glass Craftsperson** - may work with hot glass (glassblowing and casting), warm glass (fusing and slumping) or cold glass (stained glass and leadlighting) to produce glassware and decorative items.

**Leather Craftsperson** - designs, makes and decorates saddlery, gloves, shoes, bags and soft furnishings.

**Metal/Jewellery Worker** - works with copper, brass, nickel, pewter, gold, silver and other metals to create jewellery and utensils such as enamelware and cutlery. They may weld, patinate, cast, beat, construct and manipulate materials to suit the design.

**Potter/Ceramicist** - moulds clay into functional items such as mugs, bowls and tableware or conceptual (idea-based) works by wheel throwing, moulding or hand building. They then mix glazing materials to decorate pieces, using various techniques, and apply the glaze. They put the finished or decorated pieces in kilns for firing and may add other decoration after firing for artistic effect.



**Wood Craftsperson** - may carve, turn on a lathe, laminate, inlay, construct, sandpaper and sculpt wood to produce items such as sculptures, decorative wall panels, furniture, picture frames, jewellery boxes and eating utensils. They also restore and copy antique ornaments and furniture.

#### Personal Requirements

- artistic design skills
- good hand-eye coordination
- promotional skills
- business skills if self-employed.

#### Education and Training

You can work as a craftsperson without formal qualifications. However, entry to this occupation may be improved if you have qualifications. Some craftspersons are self-taught and many work under the guidance of an established craftsperson when learning their craft.

Training is available at short course, certificate, diploma and degree levels. Entry to certificate courses usually requires Year 10. Entry to the diploma and degree courses usually requires you to gain your VCE. In most cases applicants are required to attend an interview and submit a folio of work. A high level of talent is required.

Courses in a variety of craft areas are widely available at institutions in Victoria. Refer to institution handbooks for further details.

Costs, duration and entry requirements may vary between courses. See the online entry for Craftsperson at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Employment Opportunities

Most craftspersons are involved in small business operations and often rely on exhibition sales and commissioned pieces for income. Exhibitions and major commissioned pieces provide opportunities to become well known and, therefore, increase business prospects. Work is sold wholesale to shops, galleries and department stores or directly from the studio. Few craftspersons are employed full time in their craft. Often other career opportunities develop in craft education, administration, curating, museum and gallery conservation or community artwork.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Craft Victoria ☎ (03) 9650 7775 ✉ [craftvic@craftvic.org.au](mailto:craftvic@craftvic.org.au)  
☎ [www.craftvic.org.au](http://www.craftvic.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Artist (p 75); Graphic Designer (p 206); Jeweller (p 237); Leather Goods Maker (p 246); Photographer (p 317); Picture Framer (p 321); Teacher - Art (p 391); Wood Machinist (p 439).

## Crane Operator

Also known as Crane Driver.

Crane operators control mobile or stationary cranes to lift, move and place objects at locations such as construction sites, wharves and shipyards.

Crane operators may perform the following tasks:

- check the condition of the ground (e.g. building site) before setting up the crane
- place timber blocks or steel plates under the outrigger pads of the crane

- check that the crane is level on the outriggers before attempting to lift and place a load
- be aware of how much material can be safely hoisted in each load according to the crane's capacity and the weather conditions (e.g. high winds)
- make sure that cranes are ready for use by checking controls, instruments and gauges
- move the crane and position the hook so that doggers can attach loads, slings, shackles and chains
- check crane cabin instruments to make sure that loads hooked on their machines are within safe working limits
- observe and follow the signals given by doggers who direct the moving and positioning of the loads
- maintain cranes by inspecting them for defects or wear, lubricate ropes and winches, and replace worn cables.

Crane operators on building and construction sites work in all conditions. They may operate a variety of cranes: gantry cranes, used to move shipping containers; tower cranes, often used on large building projects; overhead cranes, used in factories and workshops; and mobile cranes, which may be truck mounted.

#### Personal Requirements

- enjoy technical and engineering activities
- able to concentrate
- able to follow verbal instructions
- mechanical aptitude and good coordination
- good eyesight for visual judgment of distances
- comfortable working at heights
- safety-conscious
- able to work as part of a team
- at least 18 years of age.

#### Education and Training

You can work as a crane operator without formal qualifications. You will probably get some informal training on the job.

You can also become a crane operator through a traineeship in Building and Construction (Specialist Trades) or Transport and Logistics (Mobile Crane Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Industry standards require crane operators to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To obtain a licence to Perform High Risk Work, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, keeping an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence for performing high risk work you must be at least 18 years of age.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

Licences to Perform High Risk Work are issued according to specific classes of crane operation. It is preferable to have a dogging licence before undertaking training to become a crane operator. See the entry for Dogger for details.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.



Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and Services Integrated Framework or the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Crane operators are employed by building, construction and steel companies, crane contractors, manufacturing and engineering firms, iron and steel foundries, timber yards and the minerals industry. They work on building sites, in factories and on wharves. A few crane operators set up their own businesses. Employment opportunities largely depend upon the level of activity within the construction industry, which in turn depends upon the conditions of growth in the economy, and the level of private and government investment in construction projects.

#### For Further Information

- Civil Contractors Federation (VIC) ☎ (03) 9819 5170  
✉ ccfvic@civilcontractors.com.au 🌐 www.civilcontractors.com
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

#### Related Jobs

Construction Worker (p 127); Dogger (p 151); Forklift Operator (p 195); Furniture Removalist (p 197); Mobile Plant Operator (p 279); Rigger (p 354); Waterside Worker (p 434).

## Criminologist

Criminologists examine the systems by which people accused of crimes are brought to justice, attempt to explain the reasons for criminal behaviour and suggest ways crime might be reduced.

Criminologists may perform the following tasks:

- study the ways certain criminal justice agencies operate including the law courts, police services, prisons and community-based correction centres
- analyse and interpret data received on the incidence of crime and the operation of the justice system
- provide information about crime and the ways in which people are processed by the criminal justice system
- catalogue information about the possible causes of crime and the crimes committed
- compile crime statistics and develop ways in which crime solving resources can be best used
- analyse and develop crime prevention strategies
- evaluate all aspects of crime and the criminal justice system
- research criminological issues such as those pertaining to offenders, victims of crime and sentencing.

Criminologists may specialise in organisational research, victimology, corporate crime or juvenile justice. They may work in the legal field, which tries to make sure that laws keep up with changes in society. They may also work in the social/psychological fields, which study the effects of the criminal justice system or the factors which contribute to offending behaviour by individuals.

#### Personal Requirements

- analytical ability
- personal integrity
- interested in welfare and human behaviour
- interested in working with disadvantaged groups.

#### Education and Training

To become a criminologist you usually have to study a relevant degree at university with a major in criminology, justice or legal studies. To get

into the courses below you usually need to gain your VCE with English. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

#### Degree Courses

##### Deakin University - Geelong Campus and Distance Education:

Bachelor of Arts, majoring in criminology, 3 years full time or equivalent

Bachelor of Criminology, 3 years full time or equivalent

##### La Trobe University - Bundoora Campus:

Bachelor of Legal Studies, majoring in criminology, 3 years full time or equivalent

##### Monash University - Caulfield and Clayton Campuses:

Bachelor of Arts, majoring in criminology, 3 years full time or equivalent

##### Monash University - Gippsland Campus:

Bachelor of Arts (Criminal Justice), 3 years full time or equivalent

##### RMIT University - City Campus:

Bachelor of Arts (Criminal Justice Administration), 3 years full time or equivalent

##### University of Melbourne - Parkville Campus:

Bachelor of Arts, majoring in criminology, 3 years full time or equivalent

##### Victoria University - Footscray Park Campus:

Bachelor of Arts (Criminal Justice Studies), 3 years full time or equivalent

Bachelor of Arts (Legal Studies), 3 years full time or equivalent

#### Employment Opportunities

Criminologists work in government departments or tertiary institutions.

Many universities employ criminologists as academics to teach criminology, legal studies, law and sociology and undertake their own research. Federal and state justice agencies employ criminologists as research officers and policy advisers. They work in agencies involved with policy, law reform, juvenile justice, crime statistics and adult corrections. These include the Australian Institute of Criminology, the Commonwealth Law Enforcement Board, police departments, courts and corrective institutions. Private welfare agencies also employ criminologists. Employment opportunities may depend on the allocation of government funding to these areas.

#### For Further Information

- Australian Institute of Criminology ☎ (02) 6260 9200  
✉ front.desk@aic.gov.au 🌐 www.aic.gov.au
- Victoria Police Recruitment Services Branch, Victoria Police Centre ☎ 13 20 01  
✉ hrdd.recruittingservices@police.vic.gov.au  
🌐 www.police.vic.gov.au

#### Related Jobs

Correctional Officer (p 132); Police Officer - State (p 327); Psychologist (p 337); Social Worker (p 373); Sociologist (p 374).

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## Cultural Heritage Officer

Cultural heritage officers are involved in the identification, assessment and conservation of places and items that have cultural heritage value.

Cultural heritage officers may perform the following tasks:

- develop conservation policy and guidelines
- check and administer legislation
- seek and arrange funding to support heritage applications
- identify and assess the value of places and objects of cultural heritage significance
- provide advice on proposed projects or activities that may affect cultural heritage places
- provide advice on the conservation and management of places and objects of cultural heritage significance
- prepare thematic histories (studies based on a particular theme in history)
- work out the heritage value of objects, places in the cultural landscape, events and practices, and how these have acquired their heritage value
- provide advice on the interpretation of such places and objects.

Cultural heritage officers must also develop and regularly update their knowledge of Australian history, Indigenous history and culture, urban/environmental design and one or more areas of specialisation such as prehistory, archaeology, geology, ecology, architecture, visual arts or popular culture.

### Personal Requirements

- interested in objects, events, places and practices of the past and their significance for the present and the future
- an enquiring mind and a capacity for detailed observation and accurate research
- good written communication skills
- able to work independently or as part of a team
- interested in other people and cultures
- able to prioritise and work under time constraints.

### Education and Training

To become a cultural heritage officer you usually have to study cultural heritage studies at university. To get into the courses below you usually need to gain your VCE with English. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *Charles Sturt University - Albury-Wodonga Campus:*

Bachelor of Applied Science (Parks, Recreation and Heritage),  
3 years full time or equivalent

##### *Deakin University - various locations:*

Bachelor of Arts, majoring in Australian studies, 3 years full time or equivalent

##### *La Trobe University - Bundoora Campus:*

Bachelor of Arts, majoring in Aboriginal studies or Australian studies, 3 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Arts, majoring in Australian Indigenous studies or Australian studies, 3 years full time or equivalent

##### *University of Ballarat - Mount Helen Campus:*

Bachelor of Arts (Humanities and Social Science), majoring in Indigenous studies, 3 years full time or equivalent

##### *University of Melbourne - Parkville Campus:*

Bachelor of Arts, majoring in Australian Indigenous studies or Australian studies, 3 years full time or equivalent

## Employment Opportunities

Cultural heritage officers can work as research assistants and officers, project officers, community officers, professional consultants or sub-consultants working as part of a team on a conservation project. They may work in many different areas such as National Trusts, heritage councils, museums, historical sites, art galleries, the minerals industry, local councils, private sector consulting organisations, the Australian and state or territory public services and the tourism industry.

After completing formal education and gaining practical experience, you may be able to become self-employed as a consultant.

### For Further Information

- Museums Australia (National Office) ☎ (02) 6273 2437  
✉ [ma@museumsaustralia.org.au](mailto:ma@museumsaustralia.org.au)  
🌐 [www.museumsaustralia.org.au](http://www.museumsaustralia.org.au)
- National Trust of Australia (VIC) ☎ (03) 9656 9800  
✉ [info@natstrust.com.au](mailto:info@natstrust.com.au) 🌐 [www.natstrust.com.au](http://www.natstrust.com.au)

### Related Jobs

Anthropologist (p 68); Archaeologist (p 69); Architect (p 70); Geographer (p 200); Historian (p 212); Museum Curator (p 283).

## Customs and Border Protection Officer

Customs and Border Protection officers manage the security and integrity of Australia's borders. They work for the Australian Customs and Border Protection Service, mainly at international airports, seaports or outposts along the Australian coastline.

Customs and Border Protection officers check passengers and crew before clearing them for entry into Australia. They check luggage and other cargo of ships and aircraft to prevent the illegal entry into Australia of prohibited, quarantined or dutiable goods.

Customs and Border Protection officers may perform the following tasks:

- process and assess risk levels of all passengers, crew, aircraft, ships' cargo and mail entering or leaving Australia
- board ships and aircraft to check compliance with regulations and search for undocumented cargo, prohibited goods or people
- check documents, examine luggage and clear goods for import or export
- seize and destroy prohibited imports
- respond to public and industry enquiries
- collect tariffs and duty, and refund GST to tourists
- monitor security in Customs and Border Protection controlled areas (including wharves and airport tarmac areas)
- perform administrative work as required.

Customs and Border Protection officers are multi-skilled. Some work areas involve shift-work and overtime. Most officers work closely with the public and related industry personnel.

Customs and Border Protection officers usually work as part of a team or under general supervision. During initial training and in the early stages of their careers, they can expect to be moved through a number of different areas. This may include periods of transfer to Customs and Border Protection locations around Australia.

### Personal Requirements

- good communication and interpersonal skills
- flexible and resourceful
- good organisation and planning skills
- able to work as part of a team
- courteous and efficient with high ethical standards
- able to deal with increasingly sophisticated technologies
- pass a medical examination



- satisfy security requirements
- at least 18 years of age
- must be an Australian citizen.

#### Education and Training

There are three levels of entry into Customs and Border Protection; as a trainee, a graduate trainee, or through general recruitment.

You can work as a Customs and Border Protection trainee without formal qualifications. Training is provided on the job, with successful applicants undertaking a 6-month training program before becoming a Customs and Border Protection officer.

To become a Customs and Border Protection graduate trainee officer you need to complete a 3-year or equivalent bachelor degree at an Australian university. On appointment, graduate trainee officers are introduced to a diverse range of work within the organisation through an intensive 12-month training program. The program includes rotational work placements as well as formal training leading to a nationally recognised qualification.

General recruitment entry employs individuals for specific tasks based upon the previous experience and qualifications of the applicant.

#### Additional Information

Customs and Border Protection also has an entry-level National Indigenous Cadetship Program, and an entry-level recruitment program specifically for Torres Strait Islanders to join the National Marine Unit for 12 months as sea-going crew.

#### Employment Opportunities

Customs and Border Protection trainee officer recruitment takes place at different times throughout the year. Graduate trainee officer recruitment generally takes place once a year around March-May.

The Customs and Border Protection website gives general information about the Australian Customs and Border Protection Service as well as listing all available positions.

General recruitment vacancies are advertised by the Australian Public Service at [www.apsjobs.gov.au](http://www.apsjobs.gov.au), in the press and on online job boards.

#### For Further Information

- Australian Customs and Border Protection Service Recruitment  
☎ 1800 461 245 ✉ [recruitment@customs.gov.au](mailto:recruitment@customs.gov.au)  
🌐 [www.customs.gov.au](http://www.customs.gov.au)

#### Related Jobs

Customs Broker (p 139); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Public Servant - Australian Public Service (p 340).

## Customs Broker

Customs brokers, acting under licences issued by the Australian Customs and Border Protection Service, provide professional assistance and advice on customs, quarantine and import and export matters.

Customs brokers may perform the following tasks:

- provide information to importers on customs tariffs including rates of duty and the methods of goods clearance
- receive, prepare and process import documents
- make reservations with shipping or airline companies for freight to be exported and arrange for the clearance of cargo (export declaration)

- work with the Australian Customs and Border Protection Service and other government authorities on the correct clearance of goods through customs and quarantine
- advise on tariff classifications, tariff concessions, appraisals and overseas trade enquiries.

Customs brokers in a small agency may handle all aspects of the work, while in a large agency they may specialise in a specific area such as imports, exports or classifying. Customs brokers have a lot of contact with the public.

#### Specialisation

**Freight Forwarder** - administers the carriage of goods on behalf of a shipping company. Their duties include arranging cargo space on a vessel, providing documentation and arranging customs clearance.

#### Personal Requirements

- good communication skills
- good at mathematics
- good memory
- high standard of personal integrity
- aptitude for working with computers
- good character, with no record of bankruptcy or criminal activity.

#### Education and Training

To become a licensed customs broker you usually have to complete courses in customs brokerage and a national exam, followed by additional workplace practice, after which you may apply to become a licensed customs broker. Alternatively, you can do a prescribed course of study stipulated by the Australian Customs and Border Protection Service, such as the National Customs Brokers Course, offered by the Customs Brokers and Forwarders Council of Australia (CBFCA). You also need to pass a national industry examination conducted by the CBFCA. You then need to apply to the National Customs Brokers Licensing Advisory Committee (NCBLAC) for recommendation to the Australian Customs and Border Protection Service for a customs brokers licence.

Entry to the courses below usually requires at least Year 12. Contact the institutions for full details.

#### Short Courses

*Customs Brokers and Forwarders Council of Australia - Distance Education:*

National Customs Brokers Course

*Holmesglen Institute of TAFE - Chadstone Campus:*

National Customs Brokers Program

*Kangan Batman Institute of TAFE - Essendon Campus:*

National Customs Brokers Program

#### Additional Information

For more information regarding the National Customs Brokers Course, refer to the CBFCA website.

In order to obtain a customs brokers licence, applicants must meet integrity requirements outlined in the Customs Act.

#### Employment Opportunities

Customs brokers are employed by customs brokerages, large importers and a few large exporters who transact their own business with the Australian Customs and Border Protection Service. With experience, some customs brokers become partners or start their own businesses. Others move into management jobs or freight transport. Customs brokers are usually based at major receiving ports.

Demand for customs brokers can fluctuate with the level of overseas trade (imports and exports).



#### For Further Information

- Customs Brokers and Forwarders Council of Australia Inc  
(National Office) ☎ (07) 3256 0146 ✉ [training@cbfca.com.au](mailto:training@cbfca.com.au)  
🌐 [www.cbfca.com.au](http://www.cbfca.com.au)

#### Related Jobs

Customs and Border Protection Officer (p 138); Importer and Exporter (p 221); Insurance Officer (p 232); Logistics Clerk (p 251); Public Servant - Australian Public Service (p 340); Transport Administrator (p 416); Transport Clerk (p 417).

## D

### Dancer

Also known as Ballerina.

Dancers are performers who entertain audiences by dancing as soloists, with a partner, or as members of a group.

There are many styles of dance including ballet, contemporary, Aboriginal and Torres Strait Islander, folk, jazz, ballroom and tap. Dancers may perform using a variety of styles or they may specialise in one particular dance style.

Dancers may perform the following tasks:

- attend auditions
- rehearse dance steps and movements under the direction and instruction of a choreographer
- develop their own interpretation of a role
- train daily to maintain or improve technical standards, fitness and flexibility and to help reduce the risk of injury when rehearsing or performing
- perform styles of dance as the company, project or choreographer requires
- sing or act as part of a performance
- apply own make-up for a performance
- choreograph dance works or routines.

Most professional classical dancers have studied ballet from about the age of five. However, some modern dancers, particularly men, begin training as late as 16 to 20 years of age. Working as a dancer is physically demanding. Rehearsal and performance hours can be long and unpredictable.

#### Specialisations

**Choreographer** - creates original dances and dance programs and offers suggestions as to how the dancer should interpret and perform them.

**Community Dance Worker** - works with communities to facilitate the expression of that group's ideas in dance.

**Dance Teacher** - may teach in their area of specialisation in private dance studios, or own and run their own dancing school. Dancers with appropriate qualifications can teach in secondary schools or tertiary institutions.

**Dance Therapist** - is specially trained to use dance as part of a therapy program. These programs may be used with a wide range of people, including the elderly, children and adults with special needs or specific movement disabilities.

#### Personal Requirements

- discipline, dedication and perseverance
- physically well-proportioned
- good sense of rhythm

- an appreciation of music
- technical and interpretive skills
- good general health and an ability to reach high levels of fitness
- good communication skills.

#### Education and Training

To become a dancer you usually have to complete an accredited course in dance. However, in many cases, a natural ability in dance is more important than formal qualifications. Some courses offer intensive training for a performing career, while others qualify graduates to teach dance, or provide a background which will enable graduates to take up other dance-related careers such as choreography and community arts work. Certificate and diploma courses with studies in dance are widely available in Victoria.

Entry to certificate courses usually requires Year 10. Diploma and degree courses usually require you to gain your VCE with English. Applicants are also required to attend an audition and interview. Contact the institution you are interested in for more information as requirements may change.

Costs, duration and entry requirements may vary between courses. See the online entry for Dancer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Degree Courses

##### *Deakin University - Burwood Campus:*

- Bachelor of Arts, majoring in dance, 3 years full time or equivalent
- Bachelor of Creative Arts (Dance), 3 years full time or equivalent

##### *University of Ballarat - Camp St Campus:*

- Bachelor of Arts (Music Theatre), majoring in dance, 3 years full time

##### *University of Melbourne - Southbank Campus:*

- Bachelor of Dance, 3 years full time

##### *Victoria University - Footscray Park Campus:*

- Bachelor of Creative Arts Industries, majoring in dance, 3 years full time

#### Additional Information

Each year the Australian Ballet School conducts auditions in most states and territories for their 3-year Advanced Diploma of Dance.

#### Employment Opportunities

Employers of dancers in Australia include the Australian and state ballet companies, contemporary dance companies, independent choreographers, musicals, television studios and some opera companies. The same employment opportunities exist for Aboriginal and Torres Strait Islander people trained in dance, dance teaching, choreography and the management of dance projects. All performance positions require an audition and interview with the director of the company or project.

Although some dancers are employed on a permanent basis with dance companies, many perform in small companies or as independent artists and acquire roles in shows or video clips that require their particular dance skills. Freelance dancers must audition for roles as they come up. Some dancers have agents who inform them of available auditions, but most look for audition advertisements in newspapers and magazines or join the professional association, Ausdance. Competition for jobs in the performance industry is very strong.

Accomplished dancers may also teach when they have had sufficient experience and training. Dancers who are also skilled in acting and singing, or who have experience in film and video production, may improve their employment options. Many dancers progress to areas such as arts administration, theatre management, public relations, technical backstage work, production, wardrobe and costume-making.



### For Further Information

- The Australian Ballet School  
🌐 [www.australianballetschool.com.au](http://www.australianballetschool.com.au)
- Ausdance Victoria ☎ (03) 9417 1200  
✉ [victoria@ausdance.org.au](mailto:victoria@ausdance.org.au) 🌐 [www.ausdance.org.au](http://www.ausdance.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Actor (p 51); Arts Administrator (p 76); Entertainer (p 166); Film, Stage and Television Director (p 178); Musician (p 284); Sports person (p 381).

## Debt Collector

Also known as Mercantile Agent and Collection Agent.

Debt collectors assist in the retrieval of money owed by debtors from overdue accounts, unpaid loans or other debts. They may contact the debtor, advise them of debts and arrange for payments to be made.

Debt collectors may perform the following tasks:

- contact debtors and inform them of debts
- liaise with debtors, clients, process servers and solicitors
- provide information on debts
- prepare summonses and statements of claim for filing at court
- locate debtors and convey demand for payment
- put a settlement proposal or alternative payment arrangement to the debtor
- sight, inspect or recover a security interest.

Debt collectors often work in situations that can be stressful and must be able to maintain their professional conduct at all times. They may be required to work in the evenings or at weekends. The work may involve a lot of travelling to meet clients or debtors.

The work of debt collectors is increasingly specialised. Some debt collectors work in offices or call centres while others are required to visit debtors at their home or workplace.

### Specialisation

**Repossession Agent** - collects security goods, such as property or vehicles, when debtors are unable to repay their debts.

### Personal Requirements

- good negotiation skills
- ability to remain calm in stressful situations
- good research skills
- patient and persistent
- able to abide by strict regulations
- good computer and internet skills.

### Education and Training

To become a debt collector you usually need to complete a Certificate III in Investigative Services.

Entry to the certificate course below usually requires Year 10. Contact the institution for more information as requirements may change.

### Certificate Courses

**Kangan Institute - Broadmeadows Campus:**

Certificate III in Investigative Services

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Financial Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

The debt collection industry is jointly regulated nationally by the Australian Securities and Investments Commission (ASIC) and the Australian Competition and Consumer Commission (ACCC) and at state level by licensing authorities. All debt collectors in Victoria must be licensed by the Magistrates Court of Victoria.

### Employment Opportunities

Debt collectors may work for a variety of employers including investigation agencies, insurance companies, private businesses and individuals. Those based in larger cities tend to specialise in a particular industry or in the assisting of litigation procedures.

### For Further Information

- Institute of Mercantile Agents 🌐 [www.imal.com.au](http://www.imal.com.au)
- Melbourne Magistrates Court, Department of Justice  
✉ [des.gill@justice.vic.gov.au](mailto:des.gill@justice.vic.gov.au)  
🌐 [www.magistratescourt.vic.gov.au](http://www.magistratescourt.vic.gov.au)

### Related Jobs

Court Officer (p 134); Financial Dealer and Broker (p 179); Financial Dealer's Assistant (p 181); Private Investigator (p 332).

## Deck Hand

Also known as Crew Member, Ferry Hand, Fisher and Fishing Hand.

Deck hands undertake a wide range of fisheries and maritime work on land and at sea, including communications, supply, seamanship, hospitality and stores. They may also use equipment such as nets, lines and traps to catch fish, crustaceans and molluscs.

Deck hands may perform the following tasks:

- relay information to crew, other ships and harbour authorities using radio and satellite equipment
- provide hospitality services such as table preparation, bar services and cabin care for patrons
- attach runners, weights, buoys, anchors, poles, stakes, wood or metal beams to nets, traps or pots
- sort, clean, process, preserve and package catch
- load, unload and stow supplies and equipment
- operate dinghies and dories
- operate winches and other deck equipment.

A deck hand's duties may vary depending on the function of the vessel. A fishing vessel may require the use of pots, lines and scuba equipment, whereas a recreational or transportation vessel may require hospitality services such as table preparation, bar services and cabin care for patrons.

Deck hands work in all types of weather conditions and spend long hours at sea. Conditions can be cramped, and deck hands may be required to work odd hours. Shifts could be four hours of work, followed by four hours of sleep.

### Specialisation

**Skipper** - oversees the maintenance, preparation and operation of vessels, including the hiring of crew and the logistics preparation for voyages.

### Personal Requirements

- physically fit (a medical examination may be required)
- normal colour vision (to become a skipper, although restricted licences may be available)
- an awareness of maritime safety issues
- good hand-eye coordination
- a good sense of balance
- able to work as part of a team.



### Education and Training

You can work as a deck hand without formal qualifications. You will probably get some informal training on the job. However, there are a number of courses available that may assist you in gaining employment.

Entry to these courses usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Deck Hand at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become a deck hand through a traineeship in Transport and Distribution (Maritime Operations/Marine Engine Driving) or Seafood Industry (Aquaculture/Fishing Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Maritime or Seafood Industry Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Recruitment on smaller vessels is often from within the deck hand's family as many smaller fishing companies are family-run. Employment is also available in fisheries cooperatives, state, territory or federal fisheries agencies, fishing gear manufacturers, research vessels, equipment suppliers and fish processing firms.

Demand for people to work on fishing vessels is seasonal.

While the fishing sector provides the most job opportunities for deck hands, employment is also available on recreational, transport and other commercial vessels.

### For Further Information

- Australian Shipowners Association (Head Office)  
☎ (03) 9647 6000 ✉ [admin@asa.com.au](mailto:admin@asa.com.au)  
🌐 [www.asa.com.au](http://www.asa.com.au)
- Careers at Sea 🌐 [www.careersatsea.com.au](http://www.careersatsea.com.au)

### Related Jobs

Aquaculture Technician (p 69); Coxswain (p 135); Diver (p 149); Fish Farm Hand (p 183); Fisheries Officer (p 184); Integrated Rating (p 233); Ship's Officer (p 370).

## Delivery Driver

Also known as Courier.

Delivery drivers use light vans, cars, utilities, motor bikes, scooters and bicycles to pick up and deliver goods, usually over short distances.

Delivery drivers may perform the following tasks:

- drive the vehicle into position for loading or unloading
- assist with loading or unloading to make sure goods are correctly stowed
- check loading documents
- plan the shortest delivery route and drive the vehicle to the destination

- use a two-way radio, and possibly data screens in some vehicles, to keep in contact with the depot or base
- arrange unloading and obtain a receipt for goods delivered
- handle cash and give correct change to customers
- report vehicle maintenance needs
- hand-deliver goods.

Some delivery drivers are employed on a sub-contract basis and provide their own vehicles. Motorcycle and bicycle couriers nearly always provide their own transport. Some delivery drivers wear a uniform.

### Personal Requirements

- trustworthy and reliable
- able to gain a thorough knowledge of city and suburban streets
- good communication skills and some mathematical ability
- safe driving skills.

### Education and Training

You can work as a delivery driver without formal qualifications. You will probably get some informal training on the job.

You can also become a delivery driver through a traineeship in Transport and Logistics (Road Transport). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

You will need an appropriate drivers licence for motorised vehicles.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

There are an increasing number of opportunities for bicycle couriers in metropolitan areas, as they are very efficient in busy city conditions.

### For Further Information

- Transport and Logistics Industry Skills Council  
🌐 [www.tlisc.com.au](http://www.tlisc.com.au)
- Australian Trucking Association 🌐 [www.atatruck.net.au](http://www.atatruck.net.au)
- Transport Workers' Union of Australia (VIC/TAS) ☎ 1300 727 614  
(Toll Free) ✉ [info@twu.asn.au](mailto:info@twu.asn.au) 🌐 [www.twu.asn.au](http://www.twu.asn.au)

### Related Jobs

Car Driver (p 100); Driving Instructor (p 153); Furniture Removalist (p 197); Postal Employee (p 329); Transport Clerk (p 417); Truck Driver (p 419); Truck Offsider (p 421); Waterside Worker (p 434).

## Dental Assistant

Also known as Dental Nurse.

Dental assistants prepare patients for oral examination and assist other dental workers, such as dentists, dental therapists and dental hygienists, in providing treatment to the teeth, mouth and gums. Dental assistants also carry out reception and administration duties.

Dental assistants may perform the following tasks:

- receive patients and prepare them for necessary dental procedures
- prepare surgery for dental treatment with correct instruments/materials for use as directed by the operator
- record findings from oral examinations



- provide instruments and dispense materials during oral examinations or treatments, as directed by the operator
- provide pre- and post-operative instructions for patients undergoing general or local anaesthesia
- clear the patient's mouth of saliva or dental materials used in the treatment by operating handheld suction or air and water-spraying equipment
- clean and sterilise the instruments used after treatment
- clean and tidy the surgery, and implement standard decontamination procedures for infection control
- process, mount and file dental X-rays
- maintain and re-stock dental supplies
- perform routine care and maintenance of dental equipment and instruments
- make appointments for patients, keep records of patients' treatments and send out reminders for re-examinations
- prepare accounts and collect payments
- answer the telephone and carry out other office duties.

Dental assistants may work with just one person, or as part of a team. They may have to work under pressure as most treatments have to be completed in a minimum amount of time.

#### Personal Requirements

- good with hands
- able to concentrate and follow instructions
- good communication and interpersonal skills
- good organisational and time management skills
- interested in health care work.

#### Education and Training

To become a dental assistant you usually have to complete a certificate in dental assisting. Entry to the certificate courses below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a dental assistant through a traineeship in Dental Assisting. Entry requirements may vary, but employers generally require Year 10. Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**Box Hill Institute of TAFE - Elgar Campus:**

Certificate III in Dental Assisting

**Dental Assistant Training Solutions:**

Certificate III in Dental Assisting

**RMIT University (TAFE Division) - City Campus:**

Certificate III in Dental Assisting

#### Additional Information

Dental assistants can undergo further training to allow them to take dental radiographs, perform some technical procedures and work in oral health promotion.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Health Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most dental assistants are employed by dentists in private practices or in public clinics. Some dental assistants undertake further study to become dental hygienists. Others gain further administrative experience and/or qualifications to progress to practice management.

#### For Further Information

- Australian Dental Association (Federal Office) ☎ (02) 9906 4412  
🌐 [www.ada.org.au](http://www.ada.org.au)
- Human Resources, Dental Health Services Victoria  
☎ (03) 9341 1000 ✉ [dhsv@dhsv.org.au](mailto:dhsv@dhsv.org.au)  
🌐 [www.dhsv.org.au/careers/working-in-public-dental/](http://www.dhsv.org.au/careers/working-in-public-dental/)

#### Related Jobs

Dental Hygienist (p 143); Dental Technician (p 144); Nurse - Enrolled (p 295); Oral Health Therapist (p 303).

## Dental Hygienist

Dental hygienists use preventive, educational and therapeutic methods for controlling oral diseases to help individual patients and groups achieve and maintain oral health.

Dental hygienists may perform the following tasks:

- educate, counsel and provide instruction for children and adults on dental health, plaque control, oral hygiene and nutrition
- remove deposits and stains from teeth by scaling and root debridement and tooth polishing
- identify and apply prevention strategies and control mechanisms for dental caries (decay) and periodontal (gum) disease
- select and use appropriate fluoride treatments and polish tooth restorations
- apply professional tooth whitening agents
- place temporary dental restorations
- apply rubber dam fissure sealants
- expose, process and interpret dental X-rays
- take impressions of patients' mouths for the construction of study casts, mouth guards and orthodontic appliances
- select and apply orthodontic brackets and bands (braces), and remove orthodontic wires and apparatus
- apply and remove periodontal packs
- select and administer pain control techniques, including local anaesthesia
- remove dental sutures
- instruct patients on how to look after their teeth and mouth after operations.

Dental hygienists work in a team led by a practising dentist.

#### Personal Requirements

- good hand-eye coordination
- able to perform precise and detailed work
- good problem-solving skills
- good communication skills
- interested in health care work
- able to work as part of a team.

#### Education and Training

To become a dental hygienist you usually have to study oral health at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, physical education and chemistry are normally required. Entry is highly competitive and there are strict quotas. You will need to pass the Undergraduate Medical and Health Sciences Admission Test (UMAT) and attend a structured interview. The universities have different prerequisites and may have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.



#### Degree Courses

##### *La Trobe University - Bendigo Campus:*

Bachelor of Oral Health Science, majoring in dental hygiene,  
2.5 years full time

##### *University of Melbourne - Parkville Campus:*

Bachelor of Oral Health, majoring in dental hygiene, 3 years full time

#### Additional Information

Before undertaking the clinical placements as required by courses, students may be required to obtain the relevant police clearances, immunisations and working with children checks.

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including dentistry. State and Regional Boards assist the Dental Board of Australia by implementing these national standards and policies. For full details, see the Dental Board of Australia's website.

It is a legal requirement for graduates to be registered with the Dental Board of Australia before being able to practice as a dental hygienist in any state or territory in Australia.

The Dental Hygienists' Association of Australia is a professional association that represents dental hygienists at a national level. See their website for more information.

#### Employment Opportunities

Dental hygienists are mainly employed with dentists working in private dental practices. There are some opportunities in community health centres, dental hospitals and regional clinics.

There are limited training places available and competition is strong.

#### For Further Information

- Australian Dental Association (Federal Office) ☎ (02) 9906 4412  
🌐 [www.ada.org.au](http://www.ada.org.au)
- Dental Board of Australia ☎ 1300 419 495  
🌐 [www.dentalboard.gov.au/](http://www.dentalboard.gov.au/)
- Dental Hygienists' Association of Australia Inc (National Office)  
✉ [contact@dhaa.asn.au](mailto:contact@dhaa.asn.au) 🌐 [www.dhaa.asn.au](http://www.dhaa.asn.au)
- Human Resources, Dental Health Services Victoria  
☎ (03) 9341 1000 ✉ [dhsv@dhsv.org.au](mailto:dhsv@dhsv.org.au)  
🌐 [www.dhsv.org.au/careers/working-in-public-dental/](http://www.dhsv.org.au/careers/working-in-public-dental/)

#### Related Jobs

Dental Assistant (p 142); Dental Technician (p 144); Dentist (p 145); Oral Health Therapist (p 303).

## Dental Technician

Dental technicians construct and repair dentures (false teeth) and other dental appliances, including crowns, bridges and orthodontic appliances.

Dental technicians may perform the following tasks:

- make models of the mouth and teeth from impressions of the patient's mouth (taken by the dental prosthetist, dentist, dental hygienist or dental therapist)
- use models and moulds to make dental restorations such as inlays, onlays, veneers, crowns and bridges
- polish and finish the appliance prior to being placed in the patient's mouth
- make appliances for patients with cleft palates, braces and plates for correcting irregular teeth and mouth guards.

Dental technicians work in dental laboratories on their own or in small groups. They use a wide range of materials and techniques in their work, including plaster casting, electro-spot welding, metal casting,

metal polishing, wax modelling, ceramics, wire bending, electroplating and sandblasting. The use of small CAD/CAM (Computer-Aided Design/Manufacturing) units is increasing in the design and manufacture of some dental products.

Dental technicians work closely with dentists and dental prosthetists and usually have no direct contact with patients.

Dental technology may be divided into the following categories:

**General prostheses:** the largest field in dental technology, in which partial or full dentures (metal and non-metal) are constructed to replace the partial or total loss of natural teeth.

**Crown and bridge:** used in the restoration of teeth and fixtures in the patient's mouth.

**Maxillo-facial:** prostheses are made to replace missing facial and body tissues due to injury, disease or developmental abnormality

**Orthodontics:** the manufacture of fixed or removable appliances for the correction of dental irregularities in the mouths of patients.

#### Specialisation

**Dental Prosthetist** - works as an independent practitioner in public or private clinics to provide complete and partial dentures and mouthguards to the public, consulting directly with patients about their removable dental prosthetic needs.

#### Personal Requirements

- good communication skills
- good hand-eye coordination
- able to do precise and detailed work
- an eye for form and design
- able to concentrate for long periods.

#### Education and Training

To become a dental technician you usually have to complete a diploma in dental technology. Entry to the diploma courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a dental technician through an apprenticeship in Dental Technology. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Diploma Courses

##### *Holmesglen Institute of TAFE - Chadstone Campus:*

Diploma of Dental Technology

##### *RMIT University (TAFE Division) - City Campus:*

Diploma of Dental Technology

#### Employment Opportunities

Dental technicians may work independently in hospitals, in dental laboratories or for dental group practices.

Demand is growing for dental technicians working in specialised areas, such as crown and bridge and orthodontics.

#### For Further Information

- Australian Dental Prosthetists Association 🌐 [www.adpa.com.au](http://www.adpa.com.au)
- Human Resources, Dental Health Services Victoria  
☎ (03) 9341 1000 ✉ [dhsv@dhsv.org.au](mailto:dhsv@dhsv.org.au)  
🌐 [www.dhsv.org.au/careers/working-in-public-dental/](http://www.dhsv.org.au/careers/working-in-public-dental/)

#### Related Jobs

Dental Assistant (p 142); Dental Hygienist (p 143); Dentist (p 145); Oral Health Therapist (p 303).



## Dentist

Also known as Dental Practitioner.

Dentists diagnose and treat oral diseases, injuries and abnormalities of jaws, teeth and gums, undertake preventive procedures, conduct surgery and perform other specialist techniques.

Dentists may perform the following tasks:

- examine patients' teeth and gums using dental equipment and X-rays
- diagnose dental conditions and plan oral health care in consultation with patients
- clean teeth and cavities and provide preventive care, such as scaling, cleaning and fluoride therapy
- repair decayed and broken teeth by rebuilding tooth structures and providing crowns and bridges
- treat diseases of the roots, gums and soft tissues of the mouth
- perform routine surgical procedures, such as extracting teeth, as well as complex operations on the jaws and soft tissues
- give local anesthetics when necessary for carrying out treatment
- design and fit dentures, crowns and bridges for the replacement of lost or unsound teeth
- refer patients to dental specialists for further treatment.

Specialisations

**Endodontist** - diagnoses and treats diseases and injuries to the soft tissues within the hollow core of the tooth.

**Oral/Maxillofacial Surgeon** - surgically treats diseases and abnormalities of the mouth and adjacent parts.

**Orthodontist** - diagnoses and treats badly aligned teeth and jaws.

**Paediatric Dentist** - deals with children's dental health.

**Periodontist** - prevents and treats diseases of the gums and supporting tissues.

**Prosthodontist** - restores and/or replaces teeth and their associated parts.

**Public Health Dentist** - works with the community, researching and facilitating community dental programs.

**Special Needs Dentist** - treats patients with conditions which require special techniques to manage dental problems.

Personal Requirements

- good hand-eye coordination
- able to do precise and detailed work
- good communication skills
- able to concentrate for long periods
- sympathetic and caring.

Education and Training

To become a dentist you have to study dentistry at university. To get into the courses below you usually need to gain your VCE.

Prerequisite subjects, or assumed knowledge, in one or more of English, biology, mathematics and chemistry are normally required.

Entry is highly competitive and may require passing the Undergraduate Medicine and Health Sciences Admission Test (UMAT). Applicants may also have to attend an interview. Contact the universities for more information as requirements may change.

Degree Courses

**La Trobe University - Bendigo Campus:**

Bachelor of Health Sciences in Dentistry/Master of Dentistry,  
5 years full time

**University of Melbourne - Parkville Campus:**

Bachelor of Biomedicine, 3 years full time, followed by the Doctor of  
Dental Surgery, 4 years full time

Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including dentistry. State and Regional Boards assist the Dental Board of Australia by implementing these national standards and policies. For full details, see the Dental Board of Australia's website.

It is a legal requirement for graduates to be registered with the Dental Board of Australia before being able to practise as a dentist in any state or territory in Australia.

The above degrees are accepted by registration authorities throughout Australia and New Zealand.

Employment Opportunities

Most dentists work in private practice. Some are also employed within state or territory governments and a few seek posts in the Australian Defence Force. Opportunities for careers in teaching and research also exist, mainly within the universities and dental training institutions.

Demand for dental services depends upon demographic factors such as the size and age of the population, the general economic climate, the extent of private health cover and public awareness of new services available. Demand for dentists in the public sector depends upon government funding policies.

For Further Information

- Dental Board of Australia ☎ 1300 419 495  
🌐 [www.dentalboard.gov.au/](http://www.dentalboard.gov.au/)
- Australian Dental Association (Federal Office) ☎ (02) 9906 4412  
🌐 [www.ada.org.au](http://www.ada.org.au)
- Australian Dental Association Victorian Branch Inc  
☎ (03) 8825 4600 ✉ [ask@adavb.org](mailto:ask@adavb.org) 🌐 [www.adavb.net](http://www.adavb.net)
- Human Resources, Dental Health Services Victoria  
☎ (03) 9341 1000 ✉ [dhsv@dhsv.org.au](mailto:dhsv@dhsv.org.au)  
🌐 [www.dhsv.org.au/careers/working-in-public-dental/](http://www.dhsv.org.au/careers/working-in-public-dental/)

Related Jobs

Dental Hygienist (p 143); Dental Technician (p 144); Medical Practitioner (p 268); Oral Health Therapist (p 303).

# Dentistry at Melbourne.

[mdhs.unimelb.edu.au/](http://mdhs.unimelb.edu.au/)



THE UNIVERSITY OF  
MELBOURNE  
CRICOS: 00116K

## Desktop Publisher

Desktop publishers produce professionally designed and presented documents, according to specified design and presentation requirements, using desktop publishing software.

Desktop publishers may perform the following tasks:

- talk to clients to obtain a clear understanding of their requirements, which may include preparing booklets, brochures, advertisements, in-house magazines, newsletters, training and technical manuals, stationery, and books ready for printing or publishing
- prepare quotations for work contracts
- prepare sketches and discuss design concepts with clients



- design and arrange layouts to meet clients' requirements by studying drawings, photographs, texts and artwork to be reproduced
- amend layout, select fonts and integrate text with graphics (such as logos, graphs and charts) to create a balanced and readable document
- talk to clients about problems arising during the production phase and advise on possible solutions
- produce graphics from an original concept, either free-hand or by computer
- merge photographs with computer images, scan and adjust colours for the publication
- save 'print-ready' copy, and forward it to the printing or publishing house for mass production.

Desktop publishers may specialise in simple office documents or in graphically complex, multi-coloured publications.

Desktop publishers may work long hours when a particular deadline must be met (e.g. when working on a major advertising campaign or the launch of a new business venture).

#### Personal Requirements

- enjoy working with computers
- artistic ability for drawing, design and layout
- patience for fine, detailed work
- creativity, imagination and versatility
- good visual, oral and written communication skills
- able to work under pressure to meet deadlines.

#### Education and Training

You can work as a desktop publisher without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate course below usually requires at least Year 10. Contact the institutions for full details.

You can also become a desktop publisher through a traineeship in Printing and Graphic Arts (Desktop Publishing). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate II in Printing and Graphic Arts (Desktop Publishing)

#### Employment Opportunities

Desktop publishers work for advertising agencies, graphic design houses, commercial art studios, government departments, financial institutions, retail stores, printing firms, book and newspaper publishers, and marketing and public relations firms. Self-employment is possible and many desktop publishers work on a freelance basis.

#### For Further Information

- Design Institute of Australia (National Office)  
☎ [www.design.org.au](http://www.design.org.au)
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ [info@printnet.com.au](mailto:info@printnet.com.au) ☎ [www.printnet.com.au](http://www.printnet.com.au)

#### Related Jobs

Artist (p 75); Editor (p 155); Graphic Designer (p 206); Graphic Prepress Tradesperson (p 207); Illustrator (p 221); Publisher (p 342).

## Dietary Aide

Also known as Nutrition Assistant.

Dietary aides assist dietitians to maintain high standards of nutritional care for patients in a hospital setting.

Dietary aides may perform the following tasks:

- discuss the dietary needs of patients with health care team members
- interview patients to discuss food preferences
- assist in the planning of menus for patients
- make sure food is hygienically and correctly prepared and attractively presented
- maintain diet records
- assist with the implementation of a nutrition care plan in consultation with dietitians
- assist in the training of staff involved in the preparation and serving of meals for patients with particular diets
- use computers for data entry and retrieval.

Dietary aides may be required to undertake rostered weekend and shift work.

#### Personal Requirements

- good communication skills
- enjoy working with people
- good organisational skills.

#### Education and Training

You can work as a dietary aide without formal qualifications, but employers generally require Year 10. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications. Entry to the certificate courses below usually requires completion of Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a dietary aide through a traineeship in Nutrition and Dietetic Assistance or Hospitality (Catering Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Central Gippsland Institute of TAFE - Morwell Campus:*

Certificate III in Hospitality (Catering Operations)

*South West Institute of TAFE - Warrnambool Campus:*

Certificate III in Hospitality (Catering Operations)

*Goulburn Ovens Institute of TAFE - Shepparton and Wangaratta Campuses:*

Certificate III in Nutrition and Dietetic Assistance

#### Additional Information

Students must be 18 years of age or older if undertaking modules that involve the service of alcohol.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Health or Tourism, Hospitality and Events Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Dietary aides are employed in public and private hospitals, and larger nursing homes. Demand for dietary aides depends on the general level of funding within the health system, particularly the number of hospital beds available to cater for in-patients.



### For Further Information

- Dietitians Association of Australia (National Office)  
☎ (02) 6163 5200 ✉ nationaloffice@daa.asn.au  
🌐 www.daa.asn.au

### Related Jobs

Dietitian (p 147); Events Coordinator (p 170); Funeral Attendant (p 196); Kitchenhand (p 240); Nutritionist (p 298); Weight Loss Counsellor (p 436).

## Dietitian

Dietitians apply the science of human nutrition to influence the eating behaviour of individuals, groups and communities, and select food to attain, maintain and promote health, and to prevent and treat illness and disease.

Dietitians use their skills and knowledge to modify diets to treat medical conditions, and to advise the general public about eating for health.

Dietitians may perform the following tasks:

- counsel and educate individuals and groups, including sportspeople, on appropriate diets, menu planning and preparation of food to treat an illness or disease and/or to enhance and maintain optimum health
- manage nutrition and related food services in institutions and the community
- plan, evaluate and conduct nutrition intervention/education programs for vulnerable groups to promote appropriate dietary practice in the community
- plan appropriate diets and menus to meet the needs of individuals whose medical condition can be treated or controlled by diet therapy
- advise the food industry on product development and marketing strategies, and provide food and nutrition information to staff and the public
- develop resource materials for health professionals, the community, schools and the food industry
- participate in preventative health programs in industrial health centres, including monitoring canteens and providing nutrition education and counselling
- conduct and evaluate dietary studies and other food- and nutrition-related research
- develop and administer food and nutrition policies for government, industry, health institutions and other organisations
- act as consultants to provide food service assessments, nutrition education, training and counselling, and research support to hospitals, nursing homes and other institutions
- consult with medical practitioners and other health professionals to manage the dietary and nutrition needs of clients/patients
- participate in the education and training of students, and medical and other health professionals.

Dietitians have a high level of contact with the public.

### Personal Requirements

- enjoy food and food preparation
- interested in health and wellbeing
- good communication skills
- able to work as part of a team
- aptitude for science.

### Education and Training

To become a dietitian you usually have to complete an undergraduate degree in nutrition and dietetics. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and chemistry are normally required. Alternatively, you could complete a relevant bachelor degree followed by a postgraduate qualification in nutrition and dietetics. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

#### Deakin University - Burwood Campus:

Bachelor of Food Science and Nutrition, 3 years full time or equivalent, followed by a Master of Dietetics, 1.5 years full time

#### Monash University - Clayton Campus:

Bachelor of Nutrition and Dietetics, 4 years full time

### Additional Information

Some qualified dietitians may choose to refer to themselves as nutritionists, however, not all 'nutritionists' are dietitians. Only a practitioner who has completed a university course accredited by the Dietitians Association of Australia (DAA) is eligible to be called an Accredited Practising Dietitian (APD). Check the Association's website for a list of accredited courses. APD status is often a prerequisite for employment in this field. See also the separate entry for Nutritionist.

Graduates of DAA-accredited courses may be eligible for membership of the Dietitians Association of Australia.

### Employment Opportunities

Nutrition is a rapidly expanding field and graduates find employment in a wide variety of roles and settings: patient care and education in hospitals, nutrition and health education in community health centres, public health nutrition and food and nutrition policy in government departments, private practice and consultancy, education and training, food industries, health promotion and nutrition research. Relatively new areas are in the fields of sports nutrition, publishing and the media. Some dietitians work on a part-time basis.

Opportunities for dietitians depend upon a range of factors including government health funding and the recognition of nutrition by the community as a means of preventing and treating diet-related diseases, such as heart disease, cancer and diabetes. Demand for dietitians depends on the level of public and professional awareness, and acceptance of the services they provide. Private health rebate schemes also affect demand for dietitians.

### For Further Information

- Dietitians Association of Australia (National Office)  
☎ (02) 6163 5200 ✉ nationaloffice@daa.asn.au  
🌐 www.daa.asn.au

### Related Jobs

Consumer Scientist (p 128); Dietary Aide (p 146); Environmental Health Officer (p 168); Food Technologist (p 189); Health Promotion Officer (p 210); Home Economist (p 213); Nutritionist (p 298); Sports Scientist (p 380); Weight Loss Counsellor (p 436).



## Disability Services Instructor

Disability services instructors assess training needs, conduct training programs and organise employment or recreation and leisure activities for people with intellectual and/or physical, sensory, social or emotional disabilities.

Disability services instructors may perform the following tasks:

- work out the needs of people with disabilities, including those needs which may be met through training or work experience
- plan, develop and implement education and/or training programs and check on how well they have worked
- talk to parents, residential care workers, community groups, employers and other interested people.

Disability services instructors may be required to work outside normal business hours. This depends on the nature of the training involved and could include a wide variety of tasks, such as organising a paper round or recreation and leisure activities.

They may specialise in one of the following service areas:

**Disability Employment Service**, also known as Supported Employment, finds jobs in the open labour market for people with disability, injury or health conditions. They also provide the necessary training and support to assist people to learn and retain the job, for as long as required. They work with local employers, Registered Training Organisations, Government departments, community and health services, and other organisations as part of their service delivery.

**Life Education** teaches independent living skills to people with disabilities, as well as providing literacy and numeracy skills, communication and vocational training, community orientation training, and how to cope with daily living activities.

**Recreation and Leisure** establishes recreation and support networks and provides recreation and community orientation training.

### Personal Requirements

- understanding and acceptance of people with disabilities
- good communication, organisational and leadership skills
- enthusiastic and self-motivated
- patient and flexible.

### Education and Training

To become a disability services instructor you usually have to complete a diploma or advanced diploma in disability. However, entry to this occupation may be improved if you have a degree in disability studies. Entry to the diploma courses below usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE with English. The institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

### Diploma Courses

*Directions Australia Pty Ltd - Distance Education:*

Diploma of Disability

*East Gippsland Institute of TAFE - Bairnsdale and Sale, Fulham Campuses:*

Diploma of Disability

*GippsTAFE - Leongatha and Warragul Campuses:*

Diploma of Disability

*Goulburn Ovens Institute of TAFE - Docker Street and Fryers Street Campuses:*

Diploma of Disability

*Holmesglen Institute of TAFE - Chadstone Campus:*

Diploma of Disability

### Degree Courses

*Deakin University - Burwood, Geelong and Warrnambool Campuses:*

Bachelor of Health Sciences, majoring in disability studies, 3 years full time or equivalent

*Deakin University - Geelong Waterfront Campus and Distance Education:*

Bachelor of Social Work, majoring in disability studies, 4 years full time or equivalent

*RMIT University - Bundoora Campus:*

Bachelor of Applied Science (Disability), 3 years full time or equivalent

### Employment Opportunities

Disability services instructors are employed by providers of non-residential care for people with disabilities.

Disability Employment Services are now a demand-driven service, with no limitation on the number of eligible people able to access the service.

### For Further Information

- Community Services and Health Industry Skills Council Ltd  
www.careersthatter.com.au

### Related Jobs

Community Worker (p 122); Occupational Therapist (p 299); Orientation and Mobility Instructor (p 304); Probation and Parole Officer (p 333); Social Worker (p 373); Special Care Worker (p 376); Welfare Worker (p 436); Youth Worker (p 442).

## Dispensary Technician

Also known as Dispensary Assistant.

Dispensary technicians work under the supervision of a pharmacist to prepare medicines, advise customers on non-medicinal products and assist in stock control.

Dispensary technicians may perform the following tasks:

- refer prescriptions to the pharmacist
- assist in the preparation of medicines
- select stock and attach dispensing and cautionary labels
- put medication into administration containers
- use computers for routine maintenance procedures
- carry out customer service duties, such as answering enquiries and advising customers on appropriate products for use in relation to certain health-related conditions
- operate cash registers.

Dispensary technicians have a high level of contact with the public and may have to work nights and weekends. They must also work within the bounds of legislation when providing advice to customers and selling certain medicines.

### Personal Requirements

- careful and methodical
- willing to learn new skills
- good communication skills
- able to deal sensitively with customers' needs.

### Education and Training

You can work as a dispensary technician without formal qualifications. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.



You can also become a dispensary technician through a traineeship in Community Pharmacy or Hospital/Health Services Pharmacy Support. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**Box Hill Institute of TAFE - Elgar Campus:**

Certificate III in Hospital/Health Services Pharmacy Support

**Central Gippsland Institute of TAFE - Warragul Campus:**

Certificate II in Community Pharmacy

Certificate III in Community Pharmacy (entry via Certificate II in Community Pharmacy)

**Chisholm Institute of TAFE - Dandenong and Frankston Campuses:**

Certificate II in Community Pharmacy

Certificate III in Community Pharmacy (entry via Certificate II in Community Pharmacy)

**Northern Melbourne Institute of TAFE - Epping Campus:**

Certificate II in Community Pharmacy

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Retail or Health Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most dispensary technicians are employed in the retail sector, although reasonable opportunities also exist in the health and community services area. There is also potential for advancement for those showing initiative, enthusiasm and willingness to learn, especially in larger pharmacies. Skills gained are often transferable to related industries such as retail and beauty.

#### For Further Information

- Pharmacy Guild of Australia ☎ (03) 9810 9999  
✉ [nationaltraining@guild.org.au](mailto:nationaltraining@guild.org.au) 🌐 [www.guild.org.au/training](http://www.guild.org.au/training)
- The Society of Hospital Pharmacists of Australia  
☎ (03) 9486 0177 ✉ [shpa@shpa.org.au](mailto:shpa@shpa.org.au) 🌐 [www.shpa.org.au](http://www.shpa.org.au)
- Pharmaceutical Society of Australia (VIC) ☎ (03) 9389 4000  
✉ [vic.branch@psa.org.au](mailto:vic.branch@psa.org.au) 🌐 [www.psa.org.au](http://www.psa.org.au)

#### Related Jobs

Biotechnologist (p 89); Chemist (p 111); Forensic Scientist (p 192); Medical Scientist (p 270); Pharmacist (p 315); Sales Assistant (p 358).

## Diver

Also known as Commercial Diver.

Divers carry out a range of duties underwater using self-contained underwater breathing apparatus (scuba), surface breathing apparatus or underwater work chambers.

Divers may perform the following tasks:

- check diving equipment before diving
- build, check and repair underwater constructions such as harbour wall foundations, ship hulls, jetties, piers and pipelines, sometimes using cutting or welding equipment
- use cables, flotation gear or ropes to bring underwater objects to the surface
- carry out underwater exploration
- carry out underwater search and rescue operations to recover bodies, stolen goods and other property (police divers)

- build and look after fish farms
- supervise and teach others to dive
- operate cameras for underwater filming (e.g. for nature documentaries)
- place recording instruments underwater
- operate recompression chambers.

Professional diving is both physically and mentally demanding, with a lot of time spent working underwater. It is a potentially hazardous occupation so divers must work under strict safety standards.

With experience and sometimes further training, divers may become a ship's diver or dive supervisor.

#### Specialisations

**Seafood Diver** - works in hatcheries and assists in the building and maintenance of boats, cages, nets and other equipment. They inspect, repair and clean housings, keep an eye on the health of fish, remove dead fish, find and repel or kill predators, and report observations to the supervisor.

**Offshore Construction Diver** - assists in the construction and repair of pipelines and structures associated with the production of offshore oil and gas. They are also employed in routine inspections of these structures and use non-destructive testing. Often they are tradespeople such as boilermakers or welders.

**Onshore Construction Diver** - is also known as a surface supply diver and normally dives to depths of no more than 30 metres. They work with a supply of compressed air from the surface and work on a variety of projects such as hull inspection and repairs, maintenance work and salvage operations. They also undertake a variety of tasks such as construction, inspection and repair of weirs, locks and dams.

**Recreational Dive Instructor** - teaches at resorts and diving schools. Qualified divers supervise and assist recreational divers during lessons and on dives. They also work in diving equipment shops. Instructors start at divemaster level, assisting more experienced staff, and then progress to assistant and full instructor levels.

**Saturation Diver** - is the most qualified diver and may descend to depths of 300 metres or more and work in underwater work chambers or diving bells. This work is usually for scientific research or maintenance of deep sea structures.

**Scientific Diver** - allowed to go to a depth of 30 metres and is licensed to use tools underwater, collect samples and carry out underwater analyses for scientific exploration.

#### Personal Requirements

- physically fit and able to pass a strict medical examination
- responsible and safety-conscious
- able to work as part of a team
- able to solve simple mathematical problems.

#### Education and Training

To work as a diver you usually need a certificate of occupational diving competency, although in some areas (abalone diving, reef fish collecting) a recreational scuba qualification such as those issued by the Professional Association of Diving Instructors (PADI) may be sufficient. The required qualifications vary depending on the specialist area you wish to enter. Divers should be highly skilled in scuba-diving, swimming, cardio-pulmonary resuscitation and general first aid.

Qualifications for commercial diving are available through short courses which follow the Australian Diver Accreditation Scheme (ADAS) and are provided through diving shops, training centres, schools and associations. Costs, duration and entry requirements vary.



### Additional Information

ADAS recognises four levels depending on the amount of experience and courses completed:

- Level 1 - Occupational scuba, onshore to 30m
- Level 2 - Surface supply, onshore to 30m
- Level 3 - Offshore to 50m
- Level 4 - Saturation, offshore to open limit.

Divers must be at least 18 years of age to apply for a commercial divers licence. Applicants must also have a certificate of medical fitness to dive, issued by a doctor trained and experienced in underwater medicine.

Commercial diving courses are very costly, ranging from \$4500 for occupational scuba divers to \$40,000 for saturation divers.

### Employment Opportunities

Commercial divers are employed on contracts and work both interstate and overseas. Most find work as onshore construction divers or with the offshore oil and gas industry, state or territory fisheries departments, water authorities, fish farms or civil engineering firms.

Some employers prefer applicants with a metals and engineering trade background (e.g. fitting, plumbing, welding, rigging, fitting explosives, electronics and motor mechanics). However, a trade is not essential.

There is little prospect of an untrained person finding employment as a trainee commercial diver. Most companies expect a potential employee to have some diving experience and a relevant qualification.

In the recreational diving field, opportunities are limited to people holding an instructor or divemaster qualification.

Seafood and instructing work is often seasonal. Recreational diving instructors in metropolitan centres are busy during summer and may work interstate or overseas during other seasons. Most work outside of the busiest times is on a part-time or casual basis.

After retiring from active diving, divers often move to other positions in the industry such as supervising, dive shop work or recompression chamber operation.

Demand for divers in Australia is largely affected by tourism activity, the numbers of people seeking dive instruction, and the level of offshore oil and gas exploration.

### For Further Information

- Australian Diver Accreditation Scheme ☎ (02) 6689 5656  
✉ enquiries@adas.org.au 🌐 www.adas.org.au
- PADI Asia Pacific (Professional Association of Diving Instructors)  
☎ (02) 9454 2888 ✉ padi@padi.com.au 🌐 www.padi.com

### Related Jobs

Deck Hand (p 141); Fish Farm Hand (p 183).

## Diversional Therapist

Diversional therapists provide recreational and leisure services for individuals in health care and in the community, to encourage them to take part in activities, assist in their social development, and promote a sense of well-being.

Diversional therapists may perform the following tasks:

- help clients to identify their preferred recreational activities
- encourage and support clients to take part in activities suited to their particular needs and interests
- provide information on available resources within the local community and from associated agencies

- perform administrative duties
- arrange for the purchase of leisure and recreational supplies and equipment
- organise leisure and recreational events
- train and supervise volunteers
- encourage interaction between clients and the community.

Diversional therapists work with a wide range of clients whose needs arise from ageing, physical or intellectual disabilities, mental illness, or undergoing medical treatment. Therapists work alongside other health and community workers to help clients reach their full potential.

### Personal Requirements

- enjoy helping and interacting with people
- interested in leisure as a way of promoting wellbeing
- sensitive to the needs of a wide range of individuals
- able to work as part of a team
- able to coordinate and lead group activities.

### Education and Training

To become a diversional therapist you usually have to complete a diploma or degree in diversional therapy, therapeutic recreation or leisure and health studies. Entry to the diploma and associate degree courses below usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE with English.

There are no suitable degree courses available in Victoria. The degree courses listed below are available interstate or offered via distance education. Contact the institutions you are interested in for more information.

### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Leisure and Health (entry via certificate IV)

*Australian Catholic University - Distance Education:*

Associate Degree in Social Science (Aged Care), 2 years full time or equivalent

### Degree Courses

*Charles Sturt University - Distance Education:*

Bachelor of Health Science (Leisure and Health), 6 years part time (early exit associate degree)

*University of Western Sydney (NSW) - Campbelltown Campus:*

Bachelor of Health Science, majoring in therapeutic recreation, 3 years full time

### Additional Information

Graduates may be eligible for registration with Diversional Therapy Australia (DTA).

### Employment Opportunities

Diversional therapists work with individuals and groups in a range of settings including nursing homes, hostels, day care centres and retirement villages. Diversional therapy programs are also offered in the geriatric, psychiatric and rehabilitation departments of public and private hospitals, and in correctional institutions, often in association with occupational therapy services.

Diversional therapists may also work in agencies and institutions that provide special services for clients with visual, hearing and speech disabilities. These include the Royal Society for the Blind, the Multiple Sclerosis Society and the Red Cross. They may also work in private practices or consultancies.

Job opportunities depend on the number of people living in nursing homes and residential care institutions, the number of aged citizens, and funding for homes and programs.



### For Further Information

- Diversional Therapy Australia ☎ (02) 9887 5035  
✉ enquiries@diversionaltherapy.org.au  
🌐 www.diversionaltherapy.org.au
- Department of Human Services ☎ 1300 650 172  
🌐 www.dhs.vic.gov.au

### Related Jobs

Music Therapist (p 284); Occupational Therapist (p 299); Recreation Officer (p 348).

## Dog Trainer

Also known as Animal Trainer.

Dog trainers teach dogs to obey commands and perform specific tasks.

Dog trainers may perform the following tasks:

- train dogs to obey commands by giving rewards, such as food, when the task is performed correctly
- teach dogs to wear a leash and collar, to walk by the trainer's side, to sit and lie down, to stay in one place and to come when called
- train dogs to perform other functions useful in police work, customs work and defence force work, such as to attack aggressors, to track missing people, or to find drugs and food items which are not allowed across borders
- cure dogs of bad habits such as chasing cars, being aggressive with children, excessive barking or digging holes
- conduct instruction classes for owners and their dogs
- teach the owner how to handle their dog so that it will obey commands and not return to bad habits
- give advice to owners on how to take the best care of their dog and how to overcome any future problems.

Trainers usually work at boarding kennels, at their own kennels, or at community parks. Dogs are usually in training for four to five weeks.

In intensive training programs, dogs can be kept in the full-time care of the trainer. To train dogs so intensively, the dog trainer must work with them every day. As dogs can only be taught for about 10 or 15 minutes at a time, trainers usually work with them once in the morning and once in the afternoon.

Trainers must never lose their patience with a dog or show any sign of fear of the dogs they are handling.

### Personal Requirements

- confidence in handling dogs
- patience with dogs and owners
- perseverance
- physically fit
- able to be alert to changes in dogs' behaviour
- methodical approach
- good voice control.

### Education and Training

You can work as a dog trainer without formal qualifications, but employers usually like at least Year 10. Skills are usually developed through practice and experience with dogs. This may be obtained by joining a local dog obedience club, or working in kennels or as an assistant to a professional trainer. A first aid certificate and basic animal nursing training are considered an advantage.

The Australian Customs Service, the Victorian and Federal Police, and the Australian Defence Force select potential dog trainers/handlers from within their departments and conduct internal training courses. The Australian Customs Service holds its courses in Canberra.

Dog trainers working with security firms often have a defence or police background. See entries for Police Officer - State, Police Officer - Australian Federal Police, Customs Officer, Air Force General Entry, Army Soldier and Navy Sailor for education and training requirements for these occupations.

You may improve your chances of employment by completing a course in professional dog training. Entry to the following course requires only that you have an interest in dogs. Training in Victoria can be arranged with a Registered Training Organisation via the National Dog Trainers Federation.

### Certificate Courses

*National Dog Trainers Federation:*

Certificate III in Dog Behaviour and Training

### Employment Opportunities

Dog trainers/handlers work for the Australian Customs Service, the Victorian and Federal Police, the Australian Defence Force, security companies and dog kennels.

Most dog trainers are self-employed or in partnerships. Extensive experience with dogs and money for business investment are required by newcomers to set up their own business.

While the majority of dog trainers are employed on a part-time basis, some trainers may be employed full time. Instructors at obedience clubs are usually voluntary workers.

### For Further Information

- Australian Association of Professional Dog Trainers  
☎ (03) 9877 6522 ✉ vp@aapdt.org 🌐 www.aapdt.org
- National Dog Trainers Federation ☎ 1300 664 466  
✉ info@ndtf.net.au 🌐 www.ndtf.net.au

### Related Jobs

Animal Attendant (p 66); Guide Dog Instructor (p 208); Horse Trainer (p 215).

## Dogger

Also known as Crane Chaser.

Doggers attach slings to cranes and direct the movement of loads handled by cranes in locations such as manufacturing plants, construction and mining sites, and in the maritime industry.

Doggers may perform the following tasks:

- check loads to be moved, estimating size, shape, weight and centre of gravity, and make sure that loads do not exceed lifting capacities of cranes
- attach lifting devices to hoisting equipment and items to be moved, using clamps, hooks, bolts and knots
- choose and use slings and other grappling devices, covering sharp corners with padding to prevent damage to slings
- use hand signals, whistles or two-way radios when the load is not visible to crane or winch operators
- guide loads into position as they are lowered
- inspect chains, slings, ropes, cables, hooks and lifting gear for flaws and damage such as cracks, wear, mildew and corrosion, and report defects.

Doggers work both in and out of view of crane drivers. They have to be continually alert for people, or objects, which may come in the path of the load.

### Personal Requirements

- enjoy practical outdoor work
- good hearing and vision



- physically fit
- able to judge distances
- able to work at heights
- at least 18 years of age.

#### Education and Training

To become a dogger you usually have to obtain a licence to Perform High Risk Work issued by WorkSafe Victoria. To obtain this licence, you will need to work under the supervision of a licensed operator and keep an approved logbook to record competencies achieved during training. Assessment by an independent assessor will then be required. The High Risk Work Licence is issued under the National Standard for Licensing Persons Performing High Risk Work.

#### Additional Information

You must be 18 years of age to be eligible to obtain a High Risk Work Licence. However, training may commence at a younger age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

#### Employment Opportunities

Most employers of doggers are construction, mining, maritime and crane-hiring firms. Opportunities for doggers are increased when there is growth in these industries. In periods of high activity doggers may have more opportunity to advance to positions such as crane operator or rigger.

Federal, state and territory government departments often hire subcontractors for the building of public works.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

#### Related Jobs

Construction Worker (p 127); Crane Operator (p 136); Forklift Operator (p 195); Rigger (p 354); Scaffolder (p 361); Waterside Worker (p 434).

### Driller's Assistant

Also known as Driller's Offsider, Roustabout (Oil and Gas) and Blast Hole Driller.

Drillers' assistants help move and set up drilling rigs and related equipment, and assist drillers to drill holes for such things as oil, natural gas and water, building foundations, minerals exploration and site investigation.

Drillers' assistants may perform the following tasks:

- help move drilling rigs and equipment from site to site, set up in the new site and connect power cables or hoses for water and air supply
- help obtain good quality drilling core samples
- dig and clean mud pits and drains
- mix and test drilling fluids, chemicals and grout
- assist in slotting, welding and inserting casing screens
- assist with well development and pumping tests
- operate equipment, such as pumps for air, water and mud
- use equipment and tools to correct problems in drilled holes caused by mechanical breakdowns or by harmful natural conditions

- carry out minor maintenance and repairs, including lubrication and cleaning
- clean and maintain equipment, drill and camp sites.

The major sectors in the drilling industry are:

**Blasthole** drilling for the placement of explosives for the removal of rock and ore in quarries and mines, and in the construction of roadworks, dam sites and other capital works.

**Mineral exploration and investigation** drilling which is carried out all over Australia and by Australian companies overseas, in areas of suspected or known mineral deposits.

**Oil and gas** drilling which is carried out offshore and onshore by contract companies mainly employed by oil companies.

**Site investigation/geotechnical** drilling to determine the soil and rock characteristics on construction sites.

**Foundation/construction** drilling on construction sites, usually in towns and cities, as a part of the actual building or construction process. Holes may be drilled for cast in-situ (on site) piers, contiguous piers, rock bolting, etc.

**Water well** drilling for stock and domestic or commercial bores, which is mainly carried out by private contractors based in rural areas.

Drillers and drillers' assistants usually work long hours on roster systems, and either outdoors or underground, usually as members of teams or crews. The work is often manual and sometimes physically demanding.

#### Specialisation

**Driller** - runs a team of assistants performing the above tasks.

Drillers may specialise in diamond core drilling, rotary/percussion drilling, coal seam drilling or water well drilling.

#### Personal Requirements

- enjoy practical and manual activities
- aptitude for mechanics and able to handle machinery
- physically fit
- enjoy working as part of a team
- willing to work in remote areas under difficult conditions
- good organisational skills
- able to record details accurately
- clean police record
- have a drug and alcohol clearance
- pass a pre-employment medical examination
- be over 18 years old (it is a legal requirement on most mine and quarry sites).

#### Education and Training

You can work as a driller's assistant without formal qualifications, but most employers generally require Year 10. You will probably get some informal training on the job.

You can also become a driller's assistant through a traineeship in Drilling Operations. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

A heavy vehicle drivers licence is required.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.



Once you are employed, you may be able to develop, and have recognised, additional skills under the Resources and Infrastructure Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Drillers' assistants are employed by drilling contractors, mining companies and oil companies. They work at construction sites, dam sites, mines, and oil and gas exploration and production facilities situated offshore and onshore.

Demand for drillers' assistants varies greatly with mineral and oil prices, general economic conditions and government policies in relation to mining. Onshore drilling is usually carried out in isolated areas and demand is seasonal.

Crossover from one sector of the drilling industry to another often occurs when a sector is quiet.

Opportunities exist for those with sound practical experience to move into management or supervisory roles.

#### For Further Information

- Australian Drilling Industry Association Ltd ☎ (03) 9770 4000  
✉ [adia@adia.com.au](mailto:adia@adia.com.au) 🌐 <http://adia.com.au>
- Australian Drilling Industry Training Committee Ltd  
☎ (02) 9428 3444 ✉ [office@aditc.com.au](mailto:office@aditc.com.au)  
🌐 [www.aditc.com.au](http://www.aditc.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

#### Related Jobs

Miner (p 276); Mining Engineer (p 278); Petroleum Engineer (p 314).

## Driving Instructor

Also known as Driver Trainer.

Driving instructors teach individuals and groups the theory and practical application of driving skills.

Driving instructors may perform the following tasks:

- instruct students to drive a motor vehicle by teaching them how to steer, change gears (if manual), interpret and understand traffic conditions, reverse, park, and understand mechanical components and functions
- teach road traffic regulations and advise students when they are ready for assessment
- teach road craft and defensive driving skills
- advise on and teach advanced driving techniques for emergency situations and/or to further driving knowledge.

Driving instructors with special licences teach people to drive buses and rigid or articulated vehicles.

Many driving instructors work on a commission basis. Some use their own vehicles which are converted to dual control, while others use company vehicles. The work can be stressful, with long and irregular hours. Driving instructors have a high level of public contact.

#### Personal Requirements

- enjoy working with people
- sound character
- good interpersonal skills
- able to give clear and precise instructions
- patient and tactful
- alert and have good eyesight (may be corrected)
- able to act quickly and correctly in various traffic situations.

#### Education and Training

To become a driving instructor you usually have to complete a Certificate IV in Transport and Logistics (Road Transport - Driving Instruction). Entry to this course usually requires Year 10.

Costs, duration and entry requirements may vary between courses. See the online entry for Driving Instructor at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

To be eligible to become a driving instructor in Victoria you must:

- hold a current drivers licence
- pass a medical examination to a nationally recognised standard for commercial drivers
- pass national police and traffic checks.

#### Employment Opportunities

Driving instructors are usually employed on a subcontract basis, being paid commission for each lesson given. Demand is seasonal, increasing during school summer vacations. Driving instructors may work full time where demand allows. A large number are self-employed. Where only part-time employment is available, they may work outside the industry to supplement their earnings.

Your employment prospects may be improved if you can speak and read a second language.

#### For Further Information

- Australian Driver Trainers' Association (Victoria) Inc  
☎ (03) 9809 5777 ✉ [info@adtav.org.au](mailto:info@adtav.org.au) 🌐 [www.adtav.org.au](http://www.adtav.org.au)
- Victorian Taxi Directorate, Driving Instructor Division  
☎ 1800 638 802 (FREECALL) 🌐 [www.taxi.vic.gov.au](http://www.taxi.vic.gov.au)

#### Related Jobs

Delivery Driver (p 142); Truck Driver (p 419).

## Dry Cleaner

Dry cleaners care for, clean, repair and rejuvenate clothing, curtains, bedding and furnishings, by operating dry cleaning and ironing machines.

Dry cleaners may perform the following tasks:

- comply with occupational health and safety and environmental regulations
- sort and examine articles, picking out those that may need hand spotting, or stain treatment
- sort articles into lots of equal weight, colour and type and load into computer-operated dry cleaning machines
- use and store dry cleaning chemicals and solvents
- unload the machines when the cleaning cycle is completed
- iron and press clean articles, or send them to the finishing section where the garments are pressed by steam and vacuum
- operate a boiler
- replace missing buttons and make minor repairs
- waterproof garments and apply other finishes
- operate wet cleaning machines
- check and inspect garments to make sure customer requirements have been met
- perform basic maintenance on dry cleaning and pressing equipment
- put together orders and despatch goods.

With experience and sometimes further training, it is possible to progress to supervisory and management positions.

Dry cleaners need to have a thorough knowledge of how fabrics and their blends react to the various stages of the dry cleaning process,



and must apply specialised treatment to fabrics and materials such as wool, silk, leather and vinyl, and to beading and other decorative finishes.

The work can be warm and steamy but most workplaces are well ventilated and have exhaust fans or evaporative coolers. Dry cleaners are required to stand for long periods. Customer contact may also be necessary.

#### Personal Requirements

- enjoy practical work
- normal colour vision
- reasonably fit.

#### Education and Training

You can work as a dry cleaner without formal qualifications. You will probably get some informal training on the job.

You can also become a dry cleaner through a traineeship in Dry Cleaning Operations. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Textiles, Clothing and Footwear Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most dry cleaners work in small plants located in shopping centres. Large plants employing many people are in areas close to the city and are serviced by vans bringing articles for cleaning from various agencies and shops. There are also opportunities for self-employment.

#### For Further Information

- Dry Cleaning Institute of Australia Ltd ☎ (02) 4993 3377  
✉ [info@drycleanersweb.com.au](mailto:info@drycleanersweb.com.au)  
🌐 [www.drycleanersweb.com.au](http://www.drycleanersweb.com.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)

#### Related Jobs

Laundry Worker (p 243).

## E

### Economist

Economists perform economic research and analysis, and develop and apply theories relating to the production and distribution of goods and services and people's spending behaviour.

Economists advise and provide forecasts to governments and businesses on matters such as taxation levels, wages and prices, employment and unemployment, imports and exports, and interest and exchange rates. They investigate international or national economic situations, or particular features such as industries or regions.

Economists may perform the following tasks:

- help formulate government economic policies
- study the effects of government economic and monetary policies, expenditure, taxation and other budgetary controls on the economy and the community

- identify opportunities to improve efficiency and international competitiveness
- research, analyse and record the effects of government labour market programs on economic and industrial growth
- investigate the types of goods and services that are produced and consumed in Australia and in other countries
- study industrial relations issues such as wage fixation and the effect of industrial disputes on productivity
- prepare forecasts, analyse trends and advise on economic issues
- provide management personnel with economic information and advice.

#### Specialisations

**Applied Industry Economist** - studies the economic aspects of industry structure and performance, specialising in sectors such as agriculture or manufacturing.

**Econometrician** - uses economic theories, statistical methods and forecasting techniques to develop models. They feed data on possible future economic situations into models to see the likely results and wider implications of particular actions, and advise industry or government on possible costs resulting from their policy decisions.

**Environmental Economist** - studies the environmental impact of projects and advises industry and government on environmental and natural resource management regulations. They also advise on the government's responsibilities in terms of international agreements and treaties about the environment.

**Financial Economist** - advises on investment and lending policies by studying economic trends and policy. They study the effects of government legislation and policy change on the financial system and evaluate the economic and financial aspects of investment projects by preparing financial models and budget plans.

**Labour Market Economist** - studies the economic aspects of proposed government policy and its possible effects on the labour market. They recommend improvements in techniques for settling labour disputes and related problems to government agencies, business organisations or industrial groups.

They study matters such as labour legislation, unemployment benefits, industrial accident provisions, education, collective bargaining, trade unions and industrial factors, and their impact on the labour market.

**Resource Economist** - analyses policy and issues related to natural resource industries such as minerals, fisheries and forestry. This includes supply and demand of resources, and how their extraction affects the environment.

**Taxation Economist** - studies sources of government income, the methods of expenditure and the effect of taxation and fiscal policy upon national income and overall business activity.

**Transport Economist** - studies the efficiency, financial organisation and interaction of systems such as railways, air transport, shipping, trucks, buses and cars. They examine the allocation of private and government resources to transport systems and the implications of fuel production and importation.

They also study the effects of regulation, development and the application of demand models, as well as analyse the implications of investment proposals in the transport industry.

#### Personal Requirements

- able to think logically and analytically
- able to discuss views clearly
- able to write concisely
- good at mathematics and statistical analysis.



## Education and Training

To become an economist you usually have to study economics at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees with a major in economics. Contact your preferred institution for further details.

## Employment Opportunities

Economists are employed by federal, state or territory government departments, employer organisations and trade unions, financial institutions (e.g. banks and insurance companies), other commercial organisations, and private consulting firms.

Competition for available positions is strong and postgraduate study is recommended to improve employment prospects.

Graduates often find work in administration, management and marketing.

The demand for economists depends on the level of government and private research and analysis, as well as economic activity levels.

## For Further Information

- Australian Bureau of Agricultural and Resource Economics - Bureau of Rural Sciences (ABARE - BRS) ☎ (02) 6272 2000  
[www.abare-brs.gov.au](http://www.abare-brs.gov.au)
- The Treasury ☎ (02) 6263 3298 or 1800 020 008 (FREECALL)  
[graduate.recruitment@treasury.gov.au](mailto:graduate.recruitment@treasury.gov.au)  
[www.graduates.treasury.gov.au](http://www.graduates.treasury.gov.au)

## Related Jobs

Accountant (p 47); Actuary (p 52); Agricultural and Resource Economist (p 56); Bank Officer (p 83); Company Secretary (p 123); Financial Dealer and Broker (p 179); Market Researcher (p 257); Marketing Officer (p 257); Mathematician (p 261); Parliamentarian (p 310); Political Scientist (p 328); Quantity Surveyor (p 343); Research Officer (p 353); Statistician (p 383).

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## Editor

Editors read and correct written material for publication, draft and implement editorial policy and decide on the content of publications or news items, and/or manage the production of publications and the staff involved, depending on the position they hold.

Editors may perform the following tasks:

- make decisions about the content of publications with other senior editors and in accordance with editorial policies and guidelines
- review copy to ensure that it is free from errors and conforms with style and format rules
- manage the day-to-day running of a newspaper or magazine
- assign staff and photographers to stories
- write articles, editorials or reviews
- edit copy, write headlines and plan layout of news items
- supervise journalists
- undertake administrative tasks
- work with authors to develop text to a publishable standard.

Editors have to work under pressure when meeting deadlines, especially those who work on daily newspapers.

## Specialisations

**Associate Editor** - directs the preparation of a section of a newspaper, magazine or other non-book publication, and may also hire casual staff and approve staff leave and expenses.

Associate editors may work as news editors directing the gathering, selecting and editing of news for newspapers, news agencies, television or radio news reports, or public affairs programs. Sometimes they work in the field, gathering information.

**Book Editor** - (sometimes known as copy editor) prepares manuscripts of books for publication. They may work with authors to ensure manuscripts are suitable for publication. They may also liaise with and direct graphic designers and printers to take books through to final production.

**Chief Sub-editor** - monitors the pages of a publication and sorts through the articles to decide on those that will be included.

**Proofreader** - checks typeset proofs and/or computer printouts to detect errors in typesetting or keyboarding before the final printing of a publication.

**Senior Sub-editor** - writes headlines to fit the space allocated to a story or copy, decides on layout of photographs and drawings, contributes to the design of the publication and generates new ideas. It is advantageous for senior sub-editors to have knowledge of computer-design applications.

**Sub-editor** - works for associate editors of magazines and newspapers in assessing the suitability of reports and articles for publication, and edits as necessary. They may arrange the production of photographs or illustrations and liaise with printing compositors to achieve the desired effect.

## Personal Requirements

- highly literate, with a sound knowledge of English grammar
- eye for detail
- able to concentrate on written work for long periods
- good general knowledge
- good organisational skills
- able to produce detailed and accurate work, often to tight deadlines
- good management and leadership skills
- aptitude for using computers.

## Education and Training

To become an editor you usually have to study communications, journalism, professional writing, English or media studies at university, as well as providing evidence of a wide range of reading and general interests. To get into these courses you usually need to gain your VCE. Degree courses in these areas are widely available at most universities in Victoria. Check institution handbooks for full details. The



various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

#### Additional Information

People usually proceed to the position of newspaper editor through the various stages of journalism. Editors therefore have a great deal of on-the-job experience.

If you have spent some time as an assistant editor with a publishing company, it may be possible to progress to the position of book editor. After working in other sections of a publishing firm as a secretary, sales representative, etc., you may be able to move into a trainee editorial position.

The increasing use of desktop publishing systems means that editors are expected to be familiar with computers, word processing software for editing, and publishing layout programs for typesetting.

#### Employment Opportunities

Editors work in-house for commercial publishers or in publication units within government departments and other organisations. Experienced book editors may work on a freelance or contract basis. Some may form small independent publishing houses.

In recent years, the publishing industry has seen mergers and rationalisation. There are now far fewer newspapers and publishing houses to provide entry into the profession. Technological advances have also changed the industry.

Only a few openings occur in publishing houses each year and competition for these is high. It is sometimes possible to break into publishing from an affiliated field, for example desktop publishing, teaching or printing. Advancement is dependent on a keen business and marketing sense, and capacity for hard work.

#### For Further Information

- Society of Editors (VIC) Inc ✉ [president@socedvic.org](mailto:president@socedvic.org)  
☎ [www.socedvic.org](http://www.socedvic.org)
- Victorian Writers' Centre ☎ (03) 9094 7855 ✉ [info@vwc.org.au](mailto:info@vwc.org.au)  
☎ <http://vwc.org.au>

#### Related Jobs

Copywriter (p 131); Desktop Publisher (p 145); Journalist (p 239); Publisher (p 342); Transcript Typist (p 414); Writer (p 441).

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## Education Aide

Also known as Teacher's Aide and Education Support Staff.

Education aides perform non-teaching duties to assist teaching staff in schools, provide care and supervision for children in preschools, or provide assistance to Aboriginal and Torres Strait Islander students.

Education aides may perform the following tasks:

- assist and participate in activities which improve the physical, social, emotional and intellectual development of children in schools and preschool centres

- prepare indoor or outdoor areas for learning or recreational activities
- assist in supporting children with intellectual, physical and behavioural difficulties with their academic studies
- assist children individually to learn social skills
- assist with the preparation of teaching aids, copying and collating written or printed material
- distribute and collect lesson material.

#### Specialisation

**Aboriginal/Torres Strait Islander Education Worker** - provides assistance to Aboriginal and Torres Strait Islander students and liaises with educational bodies, government agencies and committees.

#### Personal Requirements

- good communication skills (with teachers, children and parents)
- patient in dealing with people
- mature and sensible
- able to work independently or as part of a team
- enjoy helping children learn
- able to accept direction and supervision.

#### Education and Training

You can work as an education aide without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate course below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Certificate Courses

**TAFE Victoria** - various locations:

Certificate III in Education Support

#### Additional Information

To work in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

#### Employment Opportunities

Education aides are employed in government and non-government primary and secondary schools and colleges. The hiring of non-teaching staff is usually done by the school's principal. Jobs may be full time or part time. Positions are mainly advertised in local and metropolitan newspapers.

#### For Further Information

- Human Resources, Department of Education and Early Childhood Development ☎ 1800 641 943 ✉ [hrweb@edumail.vic.gov.au](mailto:hrweb@edumail.vic.gov.au)  
☎ [www.education.vic.gov.au/hrweb](http://www.education.vic.gov.au/hrweb)

#### Related Jobs

Audiovisual Technician (p 80); Child Care Worker (p 113); Library Assistant (p 247); Library Technician (p 247); Teacher - Physical Education (p 395); Teacher - Primary (p 396); Teacher - Secondary (p 397).

## Electrical Engineer

Electrical engineers design, develop and supervise the manufacture, installation, operation and maintenance of electrical systems. They work on systems for the generation, distribution, utilisation and control of electric power. They also work on electronic systems used for computing, communications and other industrial applications.



Electrical engineers may perform the following tasks:

- plan and design power stations and equipment for generators
- supervise construction plans and specifications and draw up contracts
- supervise operating and maintenance staff
- design and produce drawings of electrical systems using Computer-Aided Design (CAD)
- decide on the type and arrangement of circuits, transformers, circuit-breakers, transmission lines and equipment, based on calculations
- make or improve products such as electric motors, parts, equipment and appliances
- prepare and interpret specifications, drawings and regulations for the use of electric power equipment
- work out delivery and installation schedules for machines, switchgear, cables and fittings
- organise and manage staff and materials in the making of electrical parts, machines, appliances and equipment
- make sure that completed works meet specifications and safety standards
- design and install control and signalling devices for road, rail and air traffic
- design telecommunications equipment and networks
- contribute and adhere to safety requirements.

Electrical engineers may specialise as electrical maintenance engineers, electrical power engineers, electrical design engineers, communications engineers or computer engineers. They may also specialise in areas such as the design and operation of power plants, generators, metal refining, rolling mills, motors and transformers and, in researching new applications of technology or production machinery.

Electrical engineers work with senior administrators, civil and mechanical engineers, computer scientists and various workers in the business, building and construction industries. They advise employers, associates or clients and consult with scientists, industrial designers and architects.

#### Specialisation

**Telecommunications Engineer** - is involved in the planning, design, commissioning and monitoring of complex telecommunications networks and associated broadcasting equipment. Many telecommunications engineers work for major carriers as well as telecommunications and information technology service providers.

#### Personal Requirements

- able to identify, analyse and solve problems
- good oral and written communication skills
- enjoy computing and technical design
- practical and creative
- able to work independently and accept responsibility.

#### Education and Training

To become an electrical engineer you usually have to study engineering at university with a major in electrical or telecommunications engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics and chemistry are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Monash University - Clayton Campus:

Bachelor of Engineering, majoring in engineering (electrical),  
4 years full time or equivalent

##### RMIT University - City Campus:

Bachelor of Engineering (Electrical Engineering), 4 years full time  
Bachelor of Engineering (Electrical and Electronic Engineering),  
4 years full time

##### Swinburne University of Technology - Hawthorn Campus:

Bachelor of Engineering (Electrical and Electronic Engineering),  
4 years full time or equivalent

##### University of Melbourne - Parkville Campus:

Bachelor of Science, majoring in electrical systems, 3 years full time  
or equivalent, followed by the Master of Engineering (Electrical),  
2 years full time

##### Victoria University - Footscray Park Campus:

Bachelor of Engineering (Electrical and Electronic Engineering),  
4 years full time

#### Additional Information

Graduates may be eligible for membership of Engineers Australia.

#### Employment Opportunities

Electrical engineers work for state, territory and federal government departments; electricity suppliers; consulting engineers; and for firms in the minerals, defence, telecommunications, information technology, steel, manufacturing and service industries.

The telecommunications industry is expanding due to factors such as the rapid increase in technology, the increased use of mobile phones by the Australian public and new telecommunications companies entering the market.

#### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Telstra Switchboard ☎ 1300 368 387 (Toll Free)  
✉ [telstra.careers@team.telstra.com](mailto:telstra.careers@team.telstra.com)  
🌐 <http://careers.telstra.com>
- The Association of Professional Engineers, Scientists and Managers, Australia ☎ (03) 9695 8800  
✉ [info@apesma.asn.au](mailto:info@apesma.asn.au) 🌐 [www.apesma.asn.au](http://www.apesma.asn.au)

#### Related Jobs

Aerospace Engineer (p 55); Army Officer (p 73); Cable Jointer (p 100); Civil Engineer (p 116); Electrical Engineering Associate (p 158); Electrical or Electronics Engineering Technologist (p 159); Electronics Engineer (p 162); Mathematician (p 261); Mechanical Engineer (p 263); Naval Architect (p 290); Patent Examiner (p 312).

**Electrical  
Engineering  
at Melbourne.**  
[eng.unimelb.edu.au/](http://eng.unimelb.edu.au/)





## Electrical Engineering Associate

Also known as Electrical Engineering Technician.

Electrical engineering associates are involved in the planning, design, selection, installation, starting up, and maintenance of electrical equipment, facilities, power-plant installations, parts and distribution systems.

Electrical engineering associates usually work on a range of duties that lie between the trade level and technologist level.

Electrical engineering associates may perform the following tasks:

- assist electrical engineers in the design and layout of electrical installations and circuitry in power stations, transformers, substations, switchgear, cabling systems and motor-control systems
- collect information, perform calculations and prepare diagrams and drawings of electrical installations and circuitry
- work out material costs and quantities
- check that designs and finished products follow specifications, regulations and contract details
- use computers to produce designs, detailed drawings and documentation
- assist in testing and starting up electrical equipment and installations, and in supervising operations and maintenance
- look after and test equipment, and construct prototypes and final assemblies
- assist with research and development programs.

With further training and experience, it is possible to become a registered engineer.

Electrical engineering associates may specialise as electrical engineering design drafters, technical officers, substation design officers, test officers and power-system controllers.

### Personal Requirements

- enjoy technical and engineering activities
- good with hands
- capacity for accurate, careful work
- able to identify, analyse and solve problems
- good oral and written communication skills
- good at computing and design
- good at mathematics
- able to work independently and as part of a team.

### Education and Training

To become an electrical engineering associate you usually have to complete an advanced diploma in electrical engineering or technology. Entry to the advanced diploma courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Diploma Courses

**RMIT University (TAFE Division) - City Campus:**

Advanced Diploma of Electrical - Technology

**Swinburne University of Technology (TAFE Division) - Wantirna Campus:**

Advanced Diploma of Electrical - Technology

**Victoria University (TAFE Division) - Sunshine Campus:**

Advanced Diploma of Electrical Engineering

Advanced Diploma of Electrical - Technology

### Additional Information

After successful completion of a recognised course and a period of approved work experience, you may be eligible for associate membership of Engineers Australia.

### Employment Opportunities

Electrical engineering associates are employed by federal, state and territory government departments, private manufacturing organisations, and suppliers of electrical and power electronic equipment. They also work for vehicle manufacturers and in the mining, processing, paper and chemical industries.

Electrical engineering associates work on-site or in offices, in technical laboratories or workshops, power stations and control centres.

The demand for electrical engineering associates is dependent on activity levels in the electricity, construction and manufacturing sectors.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
☎ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career ☎ [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

### Related Jobs

Civil and Structural Engineering Associate (p 115); Electrical Engineer (p 156); Electrical Linesperson (p 158); Electrical or Electronics Engineering Technologist (p 159); Electrician (p 160); Electronics Engineer (p 162); Electronics Engineering Associate (p 162); Mechanical Engineering Associate (p 264); Refrigeration and Airconditioning Draftsperson (p 350).

## Electrical Linesperson

Also known as Lineworker and Electrical Powerline Tradesperson.

Electrical linespersons install, repair and maintain overhead lines and cables carrying electricity to domestic, commercial and industrial users and electric train services.

Electrical linespersons may perform the following tasks:

- patrol electrical lines and inspect poles and towers
- install earth stakes, power poles, towers and guy wires, using power tools and other equipment
- install and maintain aerial equipment such as conductors, cross arms, insulators, street lights, customer supply points, transformers, pole-mounted circuit breakers and switches
- trim tree branches clear of power lines using machinery
- cover live wire with insulating materials
- adjust the tension of cables and join overhead conductors using compression and wrap-on fittings
- perform emergency repairs such as isolating live wires
- make sure that conductors are correctly connected between the mains and customers' premises when performing installations or repairs
- monitor safe working conditions, and practise resuscitation, rescue and first aid procedures.

As electrical linespersons work with high and low voltages at considerable heights, they are given extensive training in safety procedures. They may be called out during emergencies at any time of the day or night and in all weather conditions.

### Personal Requirements

- enjoy outdoor work
- enjoy practical work
- willing and able to work at heights
- awareness of safety



- normal colour vision
- good with hands
- able to work well as part of a team.

#### Education and Training

To become an electrical linesperson you usually have to complete an apprenticeship in ESI Distribution or ESI Transmission. Entry requirements may vary, but employers generally require at least Year 10. However, many employers prefer Year 12.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

After completing your apprenticeship, you will need to apply to Energy Safe Victoria for a licence to perform electrical work. Visit their website for more information.

#### Employment Opportunities

Most electrical linespersons are employed by major electricity suppliers and contracting companies working within the electricity supply industry. There are also opportunities for employment with local government authorities that have their own electricity supplies, and with public transport authorities.

Most linespersons work in capital cities and in large industrial centres. In country towns, there is usually a resident electrical linesperson. Electrical linespersons working for the railways or electricity authorities may be required to work away from home.

#### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Energy Safe Victoria ☎ (03) 9203 9700  
✉ [careers@esv.vic.gov.au](mailto:careers@esv.vic.gov.au) ☎ [www.esv.vic.gov.au](http://www.esv.vic.gov.au)

#### Related Jobs

Cable Jainter (p 100); Electrical Engineering Associate (p 158); Electrician (p 160); Telecommunications Technician (p 400).

## Electrical Motor Winding Tradesperson

Electrical motor winding tradespersons apply electrical knowledge to make, fit or repair electrical machines or appliances.

Electrical motor winding tradespersons may perform the following tasks:

- install, maintain and repair electrical machines
- disassemble, rewind and reconnect coils within a variety of electrical machines including electrical motors, generators and transformers
- operate, maintain, modify and repair associated control equipment and tools such as coil winders, hoists, lathes, drilling machines and welding and heating equipment
- replace electrical motor bearings and undertake other associated mechanical activities.

Electrical motor winding tradespersons work in winding workshops, in transformer and coil manufacturers' factories, or on industrial, commercial and energy supply sites. They may have a lot of contact with the public. They may work in confined spaces or at heights, and have to stand for long periods.

Electrical motor winding tradespersons must be aware of safety regulations and often wear and use supplied protective equipment.

#### Specialisations

**Armature Winder** - winds or rewinds coils on electrical motors and generators.

**Coil Winder** - disassembles or rewinds coils, selects wire for coils, and makes, alters and assembles metal parts.

#### Personal Requirements

- enjoy mathematical and technical activities
- practical and good with hands
- good eyesight (may be corrected) and normal colour vision
- diagnostic ability
- an aptitude for mechanics
- able to do precise and detailed work
- able to work as part of a team
- physically fit
- good communication skills.

#### Education and Training

To become an electrical motor winding tradesperson you usually have to complete a traineeship in Winding and Assembly or an apprenticeship in Electrical Machine Repair. Entry requirements may vary. Employers generally require Year 10, but many prefer Year 12.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships and apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

After completing your apprenticeship, you will need to apply for a licence to perform electrical work.

#### Employment Opportunities

Electrical motor winding tradespersons are employed in the manufacturing, mining, minerals, construction, energy supply, water supply, storage and transport industries. Others work as contractors on their own behalf, or are employed by other contractors.

Promotion to supervisory, technician, engineering and management positions is possible with experience and further training.

Job opportunities depend on the level of activity in the economy, especially in the building, mining, mineral processing, petrochemical and manufacturing industries, and on consumer spending.

#### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)

#### Related Jobs

Electrician (p 160); Electronics and Communications Technician (p 161).

## Electrical or Electronics Engineering Technologist

Electrical or electronics engineering technologists apply engineering principles to the design, manufacture, installation, commissioning, operation and maintenance of electrical and/or electronic plants and equipment.

Electrical or electronics engineering technologists may perform the following tasks:

- design, test and develop electrical and/or electronic plants and equipment (under guidance from a registered professional engineer)
- assist in the planning and design of electrical and/or electronic services associated with heavy industries



- develop tests and equipment to meet Australian standards
- administer plans, specifications and contract documents
- supervise the installation, starting up, operation and maintenance of an electrical plant
- work out the likely social, economic and environmental impact of a new industry or piece of equipment
- be aware of the effects of electrical and/or electronic equipment on the health and safety of staff under supervision.

Electrical or electronics engineering technologists may work with registered and chartered professional engineers and senior management in the fields of electrical power, computers, telecommunications and industrial control. They advise employers and clients in their fields of expertise about the application of new technologies.

Electrical or electronics engineering technologists may work in laboratories, factories or offices, or on ships or oil platforms performing maintenance, design, development and experimental work.

With further training and experience, it is possible to become a registered engineer.

#### Personal Requirements

- good at technical tasks
- able to identify, analyse and solve problems
- good oral and written communication skills
- enjoy computing and design
- practical and creative
- able to work independently and accept responsibility.

#### Education and Training

To become an electrical or electronics engineering technologist you usually have to study engineering technology at university with a major in electrical or electronics engineering. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the university for more information as requirements may change.

#### Degree Courses

##### *La Trobe University - Bundoora Campus:*

Bachelor of Electronic Technology, 3 years full time or equivalent

#### Additional Information

Graduates may be eligible for membership of Engineers Australia.

#### Employment Opportunities

Electrical and electronics engineering technologists are employed in the design, installation and maintenance of equipment in the marine, electrical, electronic, communications, instrumentation and computer industries.

Opportunities also exist in the processing industries where electronic control and instrumentation systems are increasingly being used.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
☎ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Engineer Your Career ☎ [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Electrical Engineer (p 156); Electrical Engineering Associate (p 158); Electronics Engineer (p 162); Electronics Engineering Associate (p 162).

## Electrician

Also known as Electrical Mechanic, Engineering Tradesperson - Electrical/Electronics and Electrotechnology Systems Electrician.

Electricians install, maintain, repair, test and commission electrical and electronic equipment and systems for industrial, commercial and domestic purposes. Electricians may also work on electrical transmission and distribution equipment.

Electricians may perform the following tasks:

- read electrical, architectural and mechanical diagrams, drawings or specifications to determine job requirements
- plan the layout of wiring systems
- test for, locate and repair electrical malfunctions
- install electrical and electronic control systems and insulated cables
- install electrical equipment such as storage heaters, water heaters, electrical signs, switchboards and motors
- assemble and fabricate electrical and electronic components and appliances
- connect electrical equipment to power supplies
- connect switches, outlets and other fittings
- connect circuit breakers
- maintain automated production processes.

With experience and some business training, electricians may apply to gain an additional electrical contractor licence to run a business.

Electricians may work in workshops, in private homes or in manufacturers' factories. They may have a considerable amount of contact with the public, work in confined spaces and have to stand for long periods. They may also be required to work at heights on masts, towers and roofs.

Electricians must be aware of safety regulations and must wear and use supplied protective equipment to minimise risks.

#### Personal Requirements

- enjoy mathematical and technical activities
- good hand-eye coordination
- good eyesight (may be corrected) and normal colour vision
- logical thinking and diagnostic ability
- aptitude for mechanics and electronics
- able to do precise and detailed work
- able to work independently or as part of a team
- physically fit
- good communication skills.

#### Education and Training

To become an electrician you usually have to complete an apprenticeship in Electrotechnology Electrician, Electrotechnology - Systems Electrician or Engineering - Electrical/Electronic Trade. Entry requirements may vary. Employers generally require Year 10, but many prefer Year 12.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

After completing your apprenticeship, and gaining relevant practical experience, you can apply for an electricians licence. Contact Energy Safe Victoria for further information.



## Employment Opportunities

Electricians are employed in a range of industries, including manufacturing, mining, minerals, construction, energy and water supply, storage and transport, domestic and commercial electronics service, and retail. Some work for government organisations. Others work as contractors on their own behalf, or are employed by other contractors.

The data communications and IT aspects of the industry are becoming increasingly important as new technologies alter the way businesses operate. Recent developments, such as home automation and the integration of systems including data communications, suggest the current rapid rate of technological change in the industry will continue to accelerate.

Promotion to supervisory, technician, engineering and management positions is possible with experience and further training.

### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) ☎ [www.miningcareers.com](http://www.miningcareers.com)
- Energy Safe Victoria ☎ (03) 9203 9700  
✉ [careers@esv.vic.gov.au](mailto:careers@esv.vic.gov.au) ☎ [www.esv.vic.gov.au](http://www.esv.vic.gov.au)

### Related Jobs

Aircraft Maintenance Engineer (p 63); Broadcasting Technician (p 94); Business Equipment Technician (p 97); Cable Jointer (p 100); Electrical Engineering Associate (p 158); Electrical Linesperson (p 158); Electrical Motor Winding Tradesperson (p 159); Electronics and Communications Technician (p 161); Electronics Engineering Associate (p 162); Engineering Tradesperson - Mechanical (p 165); Instrument Fitter (p 229); Instrumentation Tradesperson (p 230); Lift Electrician (p 249); Navy Technical Sailor (p 293); Power Generation Plant Operator (p 329); Refrigeration and Airconditioning Draftsperson (p 350); Refrigeration and Airconditioning Mechanic (p 351); Security System Technician (p 365); Telecommunications Technician (p 400); Vending Machine Servicer (p 428); Watch and Clock Maker and Repairer (p 432).

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[www.apprenticetrainee.com.au](http://www.apprenticetrainee.com.au)

## Electronics and Communications Technician

Electronics and communications technicians diagnose faults and repair electronic devices including audiovisual, broadcast, business and medical equipment.

Electronics and communications technicians may perform the following tasks:

- attend to breakdowns in electronics and communications equipment
- diagnose, test and rectify faults in electronic circuits and apparatus
- troubleshoot digital subsystems, amplifiers and circuits
- find and repair faults in complex power supplies
- service broadcast, microwave and satellite technology
- service analogue, digital and data equipment and signals
- service fire and security alarm systems

- repair cameras, TV receivers, DVDs, computers, business and medical equipment
- dismantle, assemble and fabricate electrotechnology assemblies
- install extra low voltage wiring systems
- install electrical and electronic control systems.

Electronics and communications technicians may work in workshops, private homes or manufacturers' factories. They may have a considerable amount of contact with the public. They may work in confined spaces and have to stand for long periods. They may also be required to work at heights on masts, towers and roofs.

Electronics and communications technicians must be aware of safety regulations and must often wear and use supplied protective equipment.

### Personal Requirements

- enjoy mathematical and technical activities
- practical and good hand-eye coordination
- good eyesight (may be corrected) and normal colour vision
- diagnostic ability
- an aptitude for mechanics and electronics
- able to do precise and detailed work
- good communication skills.

### Education and Training

To become an electronics and communications technician you usually have to complete an apprenticeship in Electronics and Communications. Entry requirements may vary. Employers generally require Year 10, but many prefer Year 12.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Depending on the specific work carried out, some electronics and communications technicians may be required to hold an electrical or electricians licence.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Electrotechnology Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Electronics and communications technicians are employed in the manufacturing, mining, construction, housing/domestic, communication services, medical, wholesale and retail industries. Some work as contractors on their own behalf or are employed by other contractors.

Promotion to supervisory, engineering and management positions is possible with experience and further training.

Job opportunities depend on the level of activity in the economy, especially in the building, mining, mineral processing, petrochemical and manufacturing industries, and on consumer spending, particularly in the electronics sector.

### For Further Information

- The Certified Electronics Technicians' Association  
✉ [bonymountain@optusnet.com.au](mailto:bonymountain@optusnet.com.au) ☎ [www.ceta.org.au](http://www.ceta.org.au)
- National Electrical and Communications Association  
☎ (02) 9439 8523 ✉ [necanat@neca.asn.au](mailto:necanat@neca.asn.au)  
☎ [www.neca.asn.au](http://www.neca.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)



- EPIC Industry Training Board ☎ (03) 9654 1299  
✉ epic@epicibt.com 🌐 www.epicibt.com

#### Related Jobs

Audiovisual Technician (p 80); Broadcasting Technician (p 94); Business Equipment Technician (p 97); Electrical Motor Winding Tradesperson (p 159); Electrician (p 160).

## Electronics Engineer

Electronics engineers design, develop, test and maintain electronic parts and systems used in computers, communications, navigation, industry and entertainment.

Electronics engineers may perform the following tasks:

- design circuits for electronic control systems and instrumentation
- prepare and supervise designs, specifications, estimates, tenders and contracts
- program and operate computers to assist with complex calculations
- work out the type and arrangement of circuit parts and develop testing equipment and methods
- work out the type of installation, location, layout and transmission medium by assessing communication traffic and levels of service at installations
- work out and monitor performance, safety standards and methods for modification, maintenance and repair
- check installations to make sure they meet contract conditions
- research new applications of technology
- talk to clients, other engineers, technical officers, technicians, tradespeople and other workers.

#### Personal Requirements

- good at technical activities
- good leadership skills
- able to identify, analyse and solve problems
- good oral and written communication skills
- enjoy computing and technical design
- practical and creative
- able to work independently and accept responsibility.

#### Education and Training

To become an electronics engineer you usually have to study electronic engineering at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Deakin University - Geelong Campus and Distance Education:

Bachelor of Engineering, majoring in circuits and electronics,  
4 years full time or equivalent

##### La Trobe University - Bundoora Campus:

Bachelor of Electronic Engineering, 4 years full time or equivalent

##### RMIT University - City Campus:

Bachelor of Engineering (Electrical and Electronic Engineering),  
4 years full time

Bachelor of Engineering (Electronic and Communication Engineering), 4 years full time

##### Swinburne University of Technology - Hawthorn Campus:

Bachelor of Engineering (Electronics and Computer Systems),  
4 years full time or equivalent

Bachelor of Engineering (Electrical and Electronic Engineering),  
4 years full time or equivalent

##### Victoria University - Footscray Park Campus:

Bachelor of Engineering (Electrical and Electronic Engineering),  
4 years full time

#### Additional Information

Graduates may be eligible for membership of Engineers Australia.

#### Employment Opportunities

Electronics engineers work in industries such as communications, aviation, defence, robotics, computers, biomedical engineering and meteorology.

Employment opportunities exist with federal, state and territory government departments and authorities. Electronics and communication engineers are also employed in private industry in developing equipment for various industrial purposes, in hospitals, in radio and television stations, in the manufacture of electronic equipment, particularly in the computer field, and as sales engineers. Some may work in research laboratories and in universities and colleges undertaking research and teaching. Others set themselves up in business as consultants. Electronics engineers may be promoted to senior managerial positions.

New opportunities are arising in the areas of entertainment, transport and telecommunications.

#### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au

#### Related Jobs

Biomedical Engineer (p 89); Computer Engineer (p 124); Electrical Engineer (p 156); Electrical Engineering Associate (p 158); Electrical or Electronics Engineering Technologist (p 159); Electronics Engineering Associate (p 162); Mechatronic Engineer (p 265); Patent Examiner (p 312); Programmer (Information Technology) (p 335).

## Electronics Engineering Associate

Also known as Electronics Engineering Technician and Electronics Technical Officer.

Electronics engineering associates conduct and assist in the research, design, manufacture, repair and maintenance of advanced electronic equipment and systems.

Electronics engineering associates usually have a range of duties that lie between trade and professional engineer levels.

Electronics engineering associates may perform the following tasks:

- help electronics engineers to develop, design, test, manufacture, assemble and maintain electronic equipment and associated circuitry such as radio, television, communications, and process-control equipment and computer systems
- assist engineers in the research and design of process-control and instrumentation systems, communication systems, robotic systems, and computer and other electronic systems
- prepare drawings, plans and diagrams for electronic engineering work
- test electronic instruments and equipment, and repair or replace faulty parts
- construct and test prototype electronic devices
- perform difficult and complex calibrations, tests and adjustments



- collect and analyse data, carry out complex calculations and prepare reports
- estimate materials, costs and quantities
- look at designs and installations to check they conform with specifications, drawings, contracts and regulations
- select, start up, operate and maintain electronic equipment including computer-controlled and complex telecommunications equipment.

Electronics engineering associates may specialise in aircraft electronics, communications and data systems, control systems, telecommunications, power station control systems, defence systems, medical equipment or meteorology.

Depending on the area of specialisation, work may be carried out in remote localities or require some shift work. Electronics engineering associates usually work in a team with engineers, technologists and tradespeople.

With further training and experience, it is possible to become a registered engineer. They may also become proprietors of small businesses, or independent contractors.

#### Personal Requirements

- enjoy technical and engineering activities
- good with hands
- good at mathematics
- able to identify, analyse and solve problems
- capacity for accurate, careful work
- good communication skills
- able to work independently or as part of a team
- normal eyesight (may be corrected) and normal colour vision
- able to work systematically.

#### Education and Training

To become an electronics engineering associate you usually have to complete a diploma or advanced diploma specialising in electronics engineering. Entry to the advanced diploma courses below usually requires Year 12. Contact the institution you are interested in for more information as requirements may change.

#### Diploma Courses

*Chisholm Institute of TAFE - Berwick, Dandenong and Frankston Campuses:*

Advanced Diploma of Electronics and Communications Engineering

*RMIT University (TAFE Division) - City Campus:*

Advanced Diploma of Electronics and Communications Engineering

*Swinburne University of Technology (TAFE Division) - Hawthorn Campus:*

Advanced Diploma of Electronics and Communications Engineering

#### Additional Information

Graduates may be eligible for associate membership of Engineers Australia.

#### Employment Opportunities

Electronics engineering associates are employed by computer sales companies, government departments, security firms, telecommunications companies (as technical officers), private firms contracting to government, printing firms, light industry, and radio and television broadcasters. They may also be self-employed.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)

- Careers Centre, Engineers Australia ☎ 1300 366 613

✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)

☎ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)

- Engineer Your Career ☎ [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Aircraft Maintenance Engineer (p 63); Civil and Structural Engineering Associate (p 115); Electrical Engineering Associate (p 158); Electrical or Electronics Engineering Technologist (p 159); Electrician (p 160); Electronics Engineer (p 162); Instrument Fitter (p 229); Instrumentation Tradesperson (p 230); Meteorological Technical Officer (p 272); Security System Technician (p 365); Telecommunications Technician (p 400).

## Engine Reconditioner

Engine reconditioners set up and operate machinery to restore and recondition the machined surfaces of engines and related vehicle components.

Engine reconditioners may perform the following tasks:

- dismantle, check and inspect engines for wear
- align, bore, re-bore and re-metal bearings
- re-bore cylinders and grind valves
- re-grind camshafts and crankshafts
- repair and recondition cylinder heads
- check various components using micrometers and dial indicators
- diagnose reasons for engine failure
- pressure-test cylinder blocks and cylinder heads
- overhaul components
- install engines in cars, boats, trucks or tractors
- assemble engines after repair
- balance tailshafts, crankshafts and flywheels.

Engine reconditioners work in specialised workshops, sometimes concentrating on one aspect of the job. They wear protective clothing while on the job and may use special cleaning fluids.

#### Personal Requirements

- enjoy practical and manual work
- mechanical aptitude
- good eyesight (may be corrected) for precision work
- able to keep up to date with technological change.

#### Education and Training

To become an engine reconditioner you usually have to complete an apprenticeship in Automotive Specialist. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Engine reconditioners work in automotive engine re-manufacturing companies. They may undertake post-apprenticeship courses in the motor mechanic, automotive, electrical, fitting and turning, and engine management fields. This can lead to specialisations in performance development or specialist modification work. Qualified tradespeople with advanced academic knowledge in production engineering may take up positions as technical officers or technicians and work with design engineers.



Some engine reconditioners complete courses in business management and become owners of their own businesses. Other career options include positions in industry for teachers and trainers, technical sales representatives or field representatives.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ manager@atv.org.au 🌐 www.atv.org.au
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ vacc@vacc.com.au 🌐 www.vacc.com.au

#### Related Jobs

Automotive Parts Interpreter (p 82); Brake Mechanic (p 92); Engineering Tradesperson - Mechanical (p 165); Heavy Vehicle Motor Mechanic (p 212); Light Engine Mechanic (p 249); Light Vehicle Motor Mechanic (p 250).

## Engineering Tradesperson - Fabrication

Fabrication engineering tradespersons cut, shape, join and finish metal to make, maintain or repair metal products and structures.

They may produce moulds or patterns for metal castings, apply coatings and work with a variety of materials.

Fabrication engineering tradespersons may perform the following tasks:

- examine detailed drawings or specifications to find out job, material and equipment requirements
- cut, roll, shape, bend, mould, spin, heat or hammer metal products to fabricate parts or sub-assemblies
- heat treat metal parts and components
- set up and/or operate hand and machine tools, welding equipment or Computer Numerically Controlled (CNC) machines
- assemble parts and structures by lining up and joining them by welding, bolting or riveting
- finish products by cleaning, polishing, filing or bathing them in acid solutions, or by applying protective or decorative coatings.

With experience and further study, competent tradespeople can upgrade their qualifications to technician, associate, technologist or engineer level.

Recent changes in the industry are leading to a number of trade jobs being merged into a single broad occupation. The new training structure allows apprentices to develop a mix of skills from the traditional trades or occupations.

Fabrication engineering tradespersons work in workshops or production areas that can be noisy, hot and dusty. They usually spend most of their day standing and often need to bend, crouch or climb. Some may be required to work in confined spaces or at heights, and many work shifts. They may work in a team or alone. Workshops are generally spacious, ventilated and well lit.

Fabrication engineering tradespersons must be aware of safety regulations and must wear protective equipment to minimise heat and noise levels, and to guard against corrosive chemicals.

#### Specialisations

**Blacksmith** - shapes bars, rods and blocks of metal using hand or power tools to produce or repair metal articles.

Blacksmiths make and repair agricultural equipment, mining and quarrying machinery, or ornamental steelwork such as gates and fences.

Blacksmiths can specialise in forge-smithing, hammer-smithing or tool-smithing.

**Boilermaker (Heavy Fabrication)** - cuts, shapes, assembles and joins heavy gauge metal parts to produce or repair containers that have to withstand pressure, such as ships, boilers and storage tanks.

Boilermakers trained in structural fabrication may be involved in fitting, assembling and joining aluminium and steel in the construction or repair of towers, bridges, structural supports, girders and ships.

**Electroplater** - coats metal parts and articles with a layer of decorative or protective metal such as copper, silver, nickel or chromium. They work for electroplating firms, anodisers, metal polishers and printed circuit board manufacturers.

Electroplaters may specialise in one of the electroplating operations, such as anodising, barrel plating, metal preparation or powder coating.

**Engineering Patternmaker** - constructs full-size engineering models (called patterns) out of timber. Patternmakers also produce visual models, experimental models and models for the manufacture of prototype developmental products.

**Foundry Worker** - assists tradespeople and semi-skilled workers to cast metal into shapes used as parts for machinery, motor vehicles, railway engines, stove parts and wheels.

**Moulder/Coremaker** - makes sand moulds from which many kinds of metal objects are cast. They may make moulds for goods ranging from truck wheels, crankshafts and bulldozer blades, to door handles and water taps, or for the structural frames of equipment used in mining, quarrying and forestry. The moulding process is commonly automated or semi-automated.

**Sheetmetal Worker (Light Fabrication)** - manufactures a variety of products and components using thin sheetmetal materials. A sheetmetal worker uses hand tools, power tools and other machines to mark out, cut, shape and join a variety of sheetmetal materials. They work with galvanised steel, mild steel, stainless steel, aluminium, copper and brass.

Sheetmetal workers shape and form the cut material into products by operating sheetmetal shaping and forming machines such as brake presses, and folding, bending and rolling machines.

**Welder - First Class** - constructs or repairs metal products by joining parts either manually (using a variety of welding methods including electric arc, MIG and TIG welding or oxy-acetylene welding) or by machine. These parts are used to complete structures and equipment (e.g. ships, bridges, pipelines, vehicles and domestic appliances).

#### Personal Requirements

- enjoy working with machines
- interested in computer programmable machinery
- physically fit
- strength to handle materials, tools and machines
- good hand-eye coordination
- able to work in a team or independently
- patience and accuracy
- no skin or breathing allergies
- safety conscious.

#### Education and Training

To become a fabrication engineering tradesperson you usually have to complete an apprenticeship in Engineering - Fabrication Trade. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian



Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Fabrication engineering tradespersons work for engineering and construction firms, motor vehicle manufacturers, other manufacturers, the minerals industry, shipyards, and electricity and gas supply authorities. Some are employed by federal and state or territory government departments. They can work in metropolitan areas, large country industrial centres, and at remote mining and processing projects.

Job opportunities depend on the level of local and overseas demand for Australian manufactured goods and for minerals and energy products, the rate of technological change, and the number of new projects in heavy engineering, mining or steel construction.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Aircraft Maintenance Engineer (p 63); Engineering Tradesperson - Mechanical (p 165); Farrier (p 173); Industrial Spray Painter (p 226); Metal Surface Finisher (p 270); Metallurgist (p 271); Model Maker (p 280); Non-destructive Testing Technician (p 294); Product Assembler (p 334); Shipwright (p 371); Vehicle Body Builder (p 425).

## Engineering Tradesperson - Mechanical

Mechanical engineering tradespersons carry out a range of mechanical work on machines, sub-assemblies and manufactured parts using a range of processes, tools and machines.

Mechanical engineering tradespersons may perform the following tasks:

- examine detailed drawings or specifications to find out job, material and equipment requirements
- set up and adjust metalworking machines and equipment
- operate machines to produce parts or tools by turning, boring, milling, planing, shaping, slotting, grinding or drilling metal stock or components
- fit and assemble metal parts, tools or sub-assemblies, including welding or brazing parts
- cut, thread, bend and install hydraulic and pneumatic pipes and lines
- dismantle faulty tools and assemblies and repair or replace defective parts
- set up and/or operate hand and machine tools, welding equipment or Computer Numerically Controlled (CNC) machines
- check accuracy and quality of finished parts, tools or sub-assemblies.

With experience and further study, competent tradespeople can upgrade their qualifications to the technician, associate, technologist or engineer level.

Recent changes in the industry have resulted in a number of trade jobs being merged into a single broad occupation. The new training structure provides a mix of skills across a number of traditional occupations as well as allowing the Australian Apprentice to develop specific skills.

Mechanical engineering tradespersons usually work in workshops or production areas that can be noisy, hot and dusty. They may spend most of their day standing and often need to bend, crouch or climb.

Mechanical engineering tradespersons must be aware of safety regulations and wear protective equipment (for example, earmuffs to minimise noise levels in the workplace).

#### Specialisations

**Fitter** - fits and assembles parts and sub-assemblies made from metal and other materials to maintain and repair production machinery and other equipment. The work of fitters can be divided into three main areas: marking out work to be done, assembling and installing machines, and maintaining and repairing them.

**Gunsmith** - alters, services and repairs rifles, revolvers and other firearms.

Gunsmiths need good background training in fitting, turning and welding. Knowledge of woodwork and different types of steel is useful for producing, fitting and polishing various parts.

The work of a gunsmith can be very noisy and sometimes hazardous.

**Locksmith** - tests security requirements and installs and maintains locks and related security equipment.

Locksmiths can specialise in lock manipulation, safe work, key manufacture and identification, door closure work or master key systems.

**Metal Machinist** - sets up and operates tools to cut, shape and form metal stock and castings to exact sizes, using detailed drawings, Computer-Aided Drafting (CAD) systems and specifications. They machine metal components from simple to complex forms. Metal machinists make machines and equipment that are used to produce goods such as food, clothes, steel products and cars.

**Toolmaker** - makes and repairs moulds, dies, jigs, fixtures, press tools and other special equipment, to produce parts for industrial machinery and most other manufactured articles. They may make precision machinery for machine tools and other manufacturing machinery.

#### Personal Requirements

- enjoy technical work
- physically fit
- good hand-eye coordination
- able to work independently or as part of a team
- practical ability
- attention to detail
- normal hearing
- no skin allergies.

#### Education and Training

To become a mechanical engineering tradesperson you usually have to complete an apprenticeship in Engineering - Mechanical Trade. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

To possess firearms you need to hold a firearms licence. To deal in or repair firearms, you need to hold a firearm dealers licence. You may be required to undergo training in the safe handling and use of firearms. Apply to your local police station.

Locksmiths who want to install security lock systems must undergo a police check before being issued with a security licence.



Once you are employed, you may be able to develop, and have recognised, additional skills under the Metal and Engineering Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Mechanical engineering tradespersons are employed by engineering workshops, manufacturing firms, mining and mineral processing companies, the oil and gas industry, and utilities. Locksmiths and gunsmiths are employed by locksmithing and security firms.

Fitters, gunsmiths and locksmiths may have self-employment opportunities.

Demand is largely dependent on levels of activity in the manufacturing, mining, transport, construction, electricity, gas and water sectors, and on advances in technology and concerns about security.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Master Locksmiths Association of Australasia Ltd  
☎ (03) 9645 9995 or 1800 810 698 (FREECALL)  
✉ [national@masterlocksmiths.com.au](mailto:national@masterlocksmiths.com.au)  
☎ [www.masterlocksmiths.com.au](http://www.masterlocksmiths.com.au)

#### Related Jobs

Army Soldier - Technician (p 74); Electrician (p 160); Engine Reconditioner (p 163); Engineering Tradesperson - Fabrication (p 164); Engraver (p 166); Marine Engineer (p 255); Power Generation Plant Operator (p 329); Printing Hand (p 331); Printing Machinist (p 332); Product Assembler (p 334); Saw Doctor (p 361); Security System Technician (p 365); Shipwright (p 371); Textile Mechanic (p 402); Tool and Die Setter (p 408); Watch and Clock Maker and Repairer (p 432).

## Engraver

Engravers cut letters, figures and designs on metal, glass, wood, rubber, plastic and other surfaces.

Engravers may perform the following tasks:

- lay out lettering or designs on objects by sketching on paper or in powder on the objects to be engraved
- mark outlines of designs using scribes, mount objects in vices and cut designs with engraving tools
- clean and polish engraved areas
- sketch original designs, or copy sketches or photographs
- brush powder or solutions onto surfaces of dies or plates which imprint designs
- use pantographs to enlarge or reduce designs
- operate engraving machines to cut standard designs.

#### Specialisations

**Hand Engraver** - uses hand-held tools to engrave many different types of objects including silverware, jewellery, plates, glass, glassware, and trophies according to sketches, diagrams, photographs or sample workpieces.

**Industrial Engraver** - uses computer-aided engraving machines and mechanically operated machines to engrave objects such as signs.

#### Personal Requirements

- enjoy artistic and creative work
- able to do accurate and detailed work
- good eyesight (may be corrected)

- good hand-eye coordination
- aptitude for working with computers
- good at spelling.

#### Education and Training

You can work as an engraver without formal qualifications, but employers generally require Year 10. You will probably get some informal training on the job.

Skills in the fields of Engineering Tradesperson - Mechanical or Jeweller may be useful in this occupation and may also improve job prospects for engravers. See the Engineering Tradesperson - Mechanical and Jeweller profiles for more details.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Metal and Engineering Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Engravers are employed by manufacturers, industrial and commercial engraving firms, jewellers and combined footwear repair/key cutting/engraving shops.

Some engravers are self-employed, although the cost of establishing a business is high. Engraving firms tend to be small, usually employing two to ten staff members.

The type of equipment used by engravers is being improved with the introduction of computer technology.

#### For Further Information

- Australian Engravers and Signmakers Association Inc  
☎ (02) 9644 2266 ✉ [geneng@hotmail.net.au](mailto:geneng@hotmail.net.au)  
☎ [www.engravers.org.au](http://www.engravers.org.au)
- Jewellers Association of Australia (National Office/NSW)  
☎ (02) 9262 2862 or 1800 657 762 (FREECALL)  
✉ [info@jaa.com.au](mailto:info@jaa.com.au) ☎ [www.jaa.com.au](http://www.jaa.com.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Engineering Tradesperson - Mechanical (p 165); Jeweller (p 237); Signmaker (p 372); Textile Mechanic (p 402).

## Entertainer

Also known as Busker, Street Performer, Clown and Performer.

Entertainers captivate, amuse or thrill an audience with dramatic, musical and other performances. They may perform a variety of tasks depending on their area of expertise.

Entertainers may perform some or all of the following tasks:

- create acts and performance routines
- develop a special character such as a clown or fairy
- practice the act
- dress in costumes to suit the act
- perform acts to entertain audiences
- perform illusions and tricks
- operate a puppet or puppets
- tell jokes and perform comical acts
- undertake dangerous acts.

Entertainers must be prepared to work irregular hours and spend long periods practising and rehearsing. Some entertainers work in areas unrelated to entertaining to support themselves.



### Specialisations

**Comedian** - entertains an audience by telling jokes and performing satirical or comical acts. There are many styles of comedians, including actors, clowns, mimes and stand-up. Comedians may perform using a variety of styles or they may specialise in one particular comic style.

**Children's Entertainer** - entertains children by performing tricks and routines including dancing, acting, music, stunts, magic, storytelling and juggling. Children's entertainers may perform as a clown or fairy using a variety of styles or they may specialise in one particular type of performance.

**Circus Performer** - undertakes dangerous and/or physically strenuous acts in order to entertain an audience, whether by acrobatics, humour or feats of strength, performing either solo or as a member of a group. Circus performers aim to achieve the greatest visual impact with the smallest safety risk.

**Magician** - makes objects and people appear, vanish, transform and move by performing illusions that seem impossible to their audience. Magicians use 'sleight of hand' (skillful manipulation of objects), misdirection (diverting the audience's attention away from a crucial manoeuvre) and special equipment to achieve the effect of magic.

**Puppeteer/Ventriloquist** - entertains an audience by operating a puppet or puppets to create life-like characters. Puppeteers/ventriloquists control puppets and props either by the use of strings, rods and wires or simply by using their own hands. They may perform solo or as a member of a group to create characters and stories.

### Personal Requirements

- flair for entertainment
- good communication skills
- able to concentrate for long periods
- self-confidence, motivation, dedication and determination
- stamina to perform at peak level.

### Education and Training

You can work as an entertainer without formal qualifications. Skills are usually developed through practice and experience. You will also improve your chances of employment by undertaking some associated formal training. This may include courses in acting, circus, dance, film and television, theatre studies, music and singing. Certificate and diploma courses in these areas are widely available and offered by various Registered Training Organisations, including TAFE. Degree courses in these areas are widely available in Victoria. Refer to institution handbooks for further details.

For more information, see the entries for Actor, Dancer, Musician and Stunt Performer.

### Additional Information

Licences and/or local authorities' permission may be required for public performances.

### Employment Opportunities

Entertainers work in a number of different areas. Many are self-employed or find work through an agent. There are also careers available with commercial and independent radio and television, as well as in film, theatre, arts journalism, music and instrument sales, music and record publishing, acting, research and more.

Employment for entertainers may be affected by levels of government and/or private funding available, particularly for radio, television, film, theatre, orchestras and opera companies. The level of activity in the hospitality and travel industries may also affect employment

opportunities for entertainers who work for hotels, casinos, restaurants, resorts and cruise ships.

### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Actor (p 51); Dancer (p 140); Media Presenter (p 266); Musician (p 284); Stunt Performer (p 387).

## Environmental Engineer

Environmental engineers are concerned with assessing and managing the effects of human and other activity on the natural and built environment. They apply their engineering knowledge and skills to such things as environmental impact assessment, natural resources management and pollution control.

Environmental engineers may perform the following tasks:

- research and develop new technologies and techniques to improve the environmental acceptability of engineering projects
- evaluate environmental and social impacts of engineering projects in association with the public, scientists and other engineers
- design and operate processes to treat wastes to a standard acceptable for discharge and/or recycling (e.g. waste water treatment or waste solidification)
- work with occupational health experts to ensure a hazard-free working environment
- prepare reports and studies on the best approach to environmental management in new and existing engineering projects, taking into account environmentally sustainable economic activity and legal, environmental and industrial factors
- effectively communicate relevant issues to other technical staff, managers, regulatory authorities, public interest groups and the public.

Environmental engineers may specialise in particular industry sectors such as the minerals and chemical industries, and on civil engineering projects. They frequently work closely with other professionals, at times pooling expertise on particular projects. They may work in offices, and outdoors when involved in construction projects.

With experience and/or further training, it is possible to progress to local or corporate management roles with wider responsibilities than environmental protection.

### Personal Requirements

- enjoy technical and engineering activities
- willing to adhere to safety requirements
- able to identify, analyse and solve problems
- good oral and written communication skills
- enjoy computing and technical design
- practical and creative
- able to accept responsibility.

### Education and Training

To become an environmental engineer you usually have to study engineering at university with a major in environmental engineering. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, chemistry and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.



#### Degree Courses

##### *La Trobe University - Bendigo Campus:*

Bachelor of Civil Engineering, majoring in environmental engineering management, 4 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Environmental Engineering, 4 years full time or equivalent

##### *Monash University - Gippsland Campus:*

Bachelor of Civil and Environmental Engineering, 4 years full time or equivalent

##### *RMIT University - City Campus:*

Bachelor of Engineering (Environmental Engineering), 4 years full time

##### *Swinburne University - Hawthorn Campus:*

Bachelor of Engineering (Civil Engineering), majoring in engineering (environmental), 4 years full time or equivalent

##### *University of Melbourne - Parkville Campus:*

Bachelor of Science or Environments, majoring in civil systems (science) or physical systems (environments), 3 years full time or equivalent, followed by the Master of Engineering (Environmental), 2 years full time

##### *Victoria University - Footscray Campus:*

Bachelor of Engineering (Civil), majoring in engineering (environmental), 4 years full time

#### Additional Information

Graduates may be eligible for membership of Engineers Australia.

Prospective local government engineers may need to undertake further studies in municipal engineering.

#### Employment Opportunities

Environmental engineers may be employed with large construction and mining organisations, large forestry organisations, regulatory authorities and some government departments. Opportunities also exist for self-employment or work with consulting firms.

#### For Further Information

- Consult Australia ☎ (02) 9922 4711  
✉ [info@consultaaustralia.com.au](mailto:info@consultaaustralia.com.au)  
🌐 [www.consultaaustralia.com.au](http://www.consultaaustralia.com.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Department of Sustainability and Environment ☎ 13 61 86  
✉ [customer.service@dse.vic.gov.au](mailto:customer.service@dse.vic.gov.au) 🌐 [www.dse.vic.gov.au](http://www.dse.vic.gov.au)

#### Related Jobs

Agricultural Engineer (p 57); Agricultural Scientist (p 57); Agricultural Technical Officer (p 58); Chemical Engineer (p 110); Civil Engineer (p 116); Environmental Scientist (p 169); Mining Engineer (p 278); Petroleum Engineer (p 314).

## Environmental Health Officer 卐

Also known as Health Surveyor.

Environmental health officers assess risk and develop, regulate, enforce and monitor laws and regulations governing public health and both the built and natural environment, in order to promote good human health and environmental practices.

Environmental health officers may perform the following tasks:

- investigate complaints about food safety and make sure that shops, restaurants and food processors follow health regulations

- monitor and control water, air and noise pollution and collect water samples for analysis
- initiate and conduct environmental health impact or risk assessments
- design and conduct health education programs or public information campaigns
- prepare policy documents and guidelines relating to environmental health matters
- manage immunisation campaigns
- manage programs to control disease-causing pests such as mosquitoes
- investigate and manage public health incidents such as disease outbreaks
- manage programs to control public health and environmental issues associated with major public events
- respond to disasters and emergency situations in which public health is at risk
- assess building development applications and inspect houses and public buildings to make sure that they comply with environmental or health and safety standards
- inspect and license premises that may present infectious disease risks to the community, such as tattoo parlours and acupuncturists, where skin penetration and body piercing occurs, and inspect hairdressing and beauty salons
- maintain records, prepare statistics, write reports, and give evidence in court cases where health or environmental regulations have been violated.

Environmental health officers may specialise in the areas of air, food and water quality, disease vector control (e.g. mosquito control), waste management, environmental protection, health education and noise control.

Environmental health officers are also involved in consultation, evaluation, managerial and health promotion activities.

#### Personal Requirements

- good communication skills
- good negotiation skills
- tact and courtesy
- able to be firm and impartial when making decisions
- able to be resourceful
- initiative
- good problem-solving skills
- able to work independently or as a part of a team.

#### Education and Training

To become an environmental health officer you usually have to study science or applied science at university with a major in environmental health. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, physics, biology and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *Deakin University - Burwood Campus:*

Bachelor of Public Health and Health Promotion, majoring in environmental health, 3 years full time or equivalent

##### *La Trobe University - Bendigo Campus:*

Bachelor of Health Sciences, majoring in environmental health, 3 years full time or equivalent



**Swinburne University of Technology - Hawthorn Campus:**

- Bachelor of Health Science (Public and Environmental Health), 3 years full time or equivalent
- Bachelor of Science (Environmental Sustainability), majoring in environmental health, 3 years full time or equivalent
- Bachelor of Social Science (Community Health), majoring in environmental health, 3 years full time or equivalent

**Additional Information**

Graduates can become members of Environmental Health Australia, a national professional association for environmental health officers and other professionals working in environmental health. Student membership is available to those studying an accredited environmental health degree.

**Employment Opportunities**

The main employers are local government/councils. Environmental health officers are also employed by the Australian Defence Force, state and territory health and environment departments and area health services, major food corporations, international airlines and overseas aid organisations. There are growing opportunities elsewhere in the private sector.

**For Further Information**

- Environmental Health Association (Australia)  
☎ [www.envirohealthaustralia.com.au](http://www.envirohealthaustralia.com.au)
- Environmental Health Australia (VIC) ☎ (03) 9438 5960  
✉ [vic@eh.org.au](mailto:vic@eh.org.au) ☎ [www.eh.org.au](http://www.eh.org.au)
- Environmental Health Unit, Department of Human Services  
☎ 1300 761 874 ☎ [www.health.vic.gov.au/environment](http://www.health.vic.gov.au/environment)

**Related Jobs**

Dietitian (p 147); Environmental Scientist (p 169); Food Technologist (p 189); Health Promotion Officer (p 210); Nutritionist (p 298); Occupational Health and Safety Officer (p 298); Pest and Weed Controller (p 313); Primary Products Inspector (p 330).

**Environmental Scientist** ✨

Environmental scientists study, assess and record features of the environment and develop methods of environmental conservation, and of controlling or minimising the harmful effects of human activity on the environment.

Environmental scientists may perform the following tasks:

- plan and conduct research into the physical and biological nature of the environment
- undertake laboratory work
- monitor the environmental impacts of development activities
- develop ways of minimising the impact of industrial, agricultural and urban processes on the environment
- develop conservation plans
- investigate and report on breaches of environmental guidelines
- run community education programs
- take part in responding to emergencies, such as chemical spills and accidents
- analyse pollutants, identify their sources and assess their effects on the environment
- monitor the effects of pollution and land degradation, and recommend ways of prevention and control
- rehabilitate land, water and air affected by mining, logging, construction, degradation and pollution
- conduct research and prepare proposals to lessen the impact of agriculture, grazing, new industrial and other developments on the environment

- research matters of immediate and long-term importance to governments and communities such as the impact of land clearing on native animals and the impact of waste products on waterways
- negotiate with, and provide advice to, industry, government and the public on environmental matters such as the management, re-use or disposal of hazardous materials
- assist in developing policies, strategies and codes of practice on environmental management
- conduct environmental audits.

Environmental scientists usually work with a range of other professional and technical staff. The amount of indoor and outdoor work they do depends on the individual job.

**Specialisations**

**Ecologist** - studies the relationship between the environment and the organisms and actions that affect and are affected by it, including animal and plant life, weather patterns, and human activity such as agriculture, urban development and pollution.

**Environmental Officer** - makes sure that businesses and organisations pursue sound management practices which support plant and animal life.

**Personal Requirements**

- a logical approach to problem solving
- technical aptitude
- good communication skills
- able to work as a part of a team.

**Education and Training**

To become an environmental scientist you usually have to study environmental science or science/applied science at university with a major in environmental science or natural resource management. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the universities you are interested in for further information as requirements may change.

Most universities in Victoria offer degrees in environmental science, or science/applied science with a major in environmental science. Contact your preferred institution for further details.

**Employment Opportunities**

Environmental scientists may be employed by federal, state and territory government departments, statutory authorities and local councils. They may also find employment with engineering and environmental consultants, or in such areas as the minerals and energy industries.

In recent years, national landcare initiatives have led to the creation of new positions for environmental scientists within state and territory agriculture departments.

There are opportunities for self-employment as consultants. Secondary and tertiary teaching are other areas of employment.

Some employers have indicated a preference for environmental scientists with four years of training.

**For Further Information**

- CSIRO ☎ [www.csiro.au](http://www.csiro.au)
- Department of Primary Industries ☎ 13 61 86  
✉ [customer.service@dpi.vic.gov.au](mailto:customer.service@dpi.vic.gov.au)  
☎ <http://new.dpi.vic.gov.au>
- Victorian Association For Environmental Education  
☎ (03) 9349 1806 ✉ [vaee@vaee.vic.edu.au](mailto:vaee@vaee.vic.edu.au)  
☎ [www.vaee.vic.edu.au](http://www.vaee.vic.edu.au)



### Related Jobs

Agricultural and Resource Economist (p 56); Agricultural Engineer (p 57); Agricultural Scientist (p 57); Biotechnologist (p 89); Botanist (p 91); Chemist (p 111); Environmental Engineer (p 167); Environmental Health Officer (p 168); Geographer (p 200); Geologist (p 202); Hydrographer (p 220); Marine Biologist (p 254); Microbiologist (p 274); Natural Resource Manager (p 287); Pharmacologist (p 316); Toxicologist (p 410); Urban and Regional Planner (p 423); Viticulturalist (p 430); Winemaker (p 437); Zoologist (p 443).

## Events Coordinator

Also known as Functions Coordinator, Conference Coordinator and Meetings and Events Manager.

Events coordinators plan and organise special events, such as parties, wedding receptions, product launches, banquets, meetings, conferences and conventions.

Events coordinators may perform the following tasks:

- talk with clients about events and offer suggestions to ensure their requests can be met
- negotiate within a budget the type and costs of services to be provided
- organise the venue and ensure that it is appropriately set up, with regard to seating and decor
- consult with management to ensure adequate staff members are rostered for duty and with catering staff to plan the menu
- consult with service providers such as entertainers and transport companies
- coordinate staff to make sure that the program of events occurs on time, for example, speeches and the serving of food and refreshments
- oversee work by contractors and report on variations to work orders
- find solutions to any problems that arise concerning services or programs provided
- advise senior management on matters requiring their attention and implement their decisions
- follow up with the client to arrange payment and, after the event, to evaluate the service provided
- collect and analyse data on projects undertaken, and report on project outcomes.

Depending on the size of the establishment, events coordinators may work independently or as part of a team. Events coordinators often work irregular hours, and on weekends and public holidays.

### Personal Requirements

- enjoy working with people
- good organisational skills
- attention to detail
- good interpersonal and supervisory skills
- good communication skills
- good grooming and presentation
- comfortable working with computers
- able to negotiate, organise, delegate and work under pressure
- good time management skills.

### Education and Training

You can work as an events coordinator without formal qualifications, but employers usually require at least Year 10. Skills are usually learnt on the job through experience in the tourism and hospitality industry.

However, your employment prospects may be improved if you have relevant qualifications. Entry to the course below usually requires Year 11. Contact the institutions for details.

Costs, duration and entry requirements may vary between courses. See the online entry for Events Coordinator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become an events coordinator through a traineeship in Events. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

TAFE Victoria - various locations:

Certificate III in Events

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Events coordinators work in large hotels, function and conference centres, community centres and tourist resorts. There are also opportunities for self-employment.

Employment prospects depend on the number, size and frequency of special events, and the level of tourism and economic activity.

### For Further Information

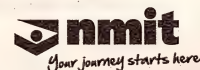
- Meetings and Events Australia ☎ (02) 9929 5400  
🌐 [www.meetingsevents.com.au](http://www.meetingsevents.com.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Tourism Training Australia ☎ (02) 9286 3944  
✉ [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
🌐 [www.tourismtraining.com.au](http://www.tourismtraining.com.au)

### Related Jobs

Caterer (p 108); Civil Celebrant (p 116); Dietary Aide (p 146); Funeral Attendant (p 196); Marketing Officer (p 257).

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9269 8400



## Exhaust Fitter and Repairer

Exhaust fitters and repairers remove and replace defective exhaust systems or parts of vehicles.

Exhaust fitters and repairers may perform the following tasks:

- replace defective exhaust systems by removing the manifold, exhaust piping, muffler box or tailpipe, as necessary
- select a replacement part (usually from a catalogue) according to the vehicle make, model and year
- choose and modify a suitable alternative if the selected replacement part is not available
- bolt, clamp, tack or weld the part into place.

Exhaust fitters and repairers work in a workshop with the vehicle on a hoist, therefore much of the work involves reaching overhead.



Working conditions can be noisy and involve handling dirty or rusted metal parts.

#### Personal Requirements

- enjoy practical and manual activities
- physically fit
- mechanical aptitude.

#### Education and Training

You can work as an exhaust fitter and repairer without formal qualifications. You will probably get some informal training on the job.

You can also become an exhaust fitter and repairer through a traineeship in Automotive Mechanical. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

It is useful for exhaust fitters and repairers to hold a drivers licence.

#### Employment Opportunities

Exhaust fitters and repairers work mainly for small specialist exhaust and muffler repair companies. Some of these firms may also be involved with tyre sales and fitting, as well as other mechanical services.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Light Vehicle Motor Mechanic (p 250); Radiator Repairer (p 344); Tyre Fitter and Repairer (p 421); Vehicle Serviceperson (p 427); Windscreen Fitter (p 437).

## F

### Family Day Carer

Family day carers look after babies and children in their own home under local government or community based schemes.

Family day carers may perform the following tasks:

- provide a range of activities and experiences which are designed to promote physical, social, emotional and intellectual development for each child
- supervise the activities of children in their care, making sure of their physical safety at all times
- manage children's behaviour using positive discipline
- maintain a safe, clean and appealing environment for children
- make sure that the meals and snacks provided for children are varied and nutritionally adequate
- take children to and from school or the preschool centre
- perform first aid in emergencies
- provide feedback to parents about the child's day
- maintain accurate attendance records

- maintain a register of emergency telephone numbers such as those of parents, doctors, police, ambulance and the fire brigade
- maintain a daily record of accidents, illnesses and the administration of medicine in accordance with requirements.

#### Personal Requirements

- enjoy working with children
- healthy and physically fit
- 18 years of age or older.

#### Education and Training

To work as a family day carer you usually need to complete a Certificate III in Children's Services. Entry to certificate courses usually requires Year 10. Contact the institutions you are interested in for more information as requirements may change.

Costs, duration and entry requirements may vary between courses. See the online entry for Family Day Carer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a family day carer through a traineeship in Children's Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Many family day carers are self-employed, operating from their own home. To work with minors in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

A new National Quality Framework for Early Childhood Education and Care is due to be implemented by 1 January 2014. Under this system, all family day carers in Australia will be required to hold (or be working towards) a Certificate III level early childhood education and care qualification.

#### Employment Opportunities

Family day carers may work during standard business hours, before and after school, during school holidays, and, in some circumstances, overnight or on weekends.

Demand for family day care services is growing, and more parents are beginning to choose this option over larger childcare centres.

#### For Further Information

- Family Day Care Australia ☎ 1800 621 218 (FREECALL)  
✉ [enquiries@fdca.com.au](mailto:enquiries@fdca.com.au) 🌐 [www.familydaycare.com.au](http://www.familydaycare.com.au)
- Community Services and Health Industry Skills Council Ltd  
🌐 [www.careerthatmatter.com.au](http://www.careerthatmatter.com.au)
- Child Care Centres Association of Victoria ☎ (03) 9532 2017  
✉ [info@cccav.org.au](mailto:info@cccav.org.au) 🌐 [www.cccav.org.au](http://www.cccav.org.au)

#### Related Jobs

Child Care Worker (p 113); House Parent (p 219); Nanny (p 286).

### Farm Hand

Also known as Station Hand, Drover and Musterer.

Farm hands assist farmers and graziers with growing crops and/or feeding and raising livestock.

Farm hands may perform the following tasks:

- cultivate soil, sow crops and control weeds by slashing, rotary hoeing or chemical spraying
- plant ground crops between rows of trees and bushes to control weeds and soil temperatures
- construct wire trellises (frames) to support vines, berries and fruit



- take part in harvesting operations using tractors, harvesters, forklifts and hand tools
- feed livestock and poultry
- prepare milking machinery and assist with milking operations
- clean and sterilise farm equipment
- clear away animal waste and hose out operational areas
- perform other tasks involved in the breeding and raising of livestock, such as shearing, dipping, branding, crutching, gelding, marking and assisting with artificial insemination
- ride horses or motorbikes to muster sheep or cattle
- maintain and repair farm buildings, bores, fences, machinery, troughs, windmills and other equipment.

Farm hand work can be physically demanding. During lambing or calving, mustering, harvesting or fruit picking time, farm hands may be required to work long and irregular hours. Accommodation may be provided by the employer on the property.

#### Specialisations

**Dairy Farm Hand/Worker** - works on farms mainly concerned with milk production. They round up cows, secure them in bails in the milking shed, wash udders with a solution of detergent and water, attach milking apparatus to udders and milk cows. They may also be involved in the breeding side of dairy farming.

**Fruit and Vegetable Farm Hand** - assists in the cultivation, harvesting and packaging of fruit, vegetables, nuts and berries on farms, orchards and market gardens. They may be responsible for spraying chemicals to treat disease and pests, irrigating of crops and selecting suitable produce for sale as dictated by quality guidelines.

**Piggery Worker** - raises pigs for meat production or for sale as breeding stock. They breed sows with selected boars, work out feed formulas, inject serum to prevent disease, and whitewash and disinfect buildings and pig pens. They also keep breeding and feeding records.

**Poultry Farm Hand** - works on farms concerned with egg production or raising poultry for sale. They may keep eggs in incubators, look after the newly hatched chickens and provide them with feed and water, and disinfect hatcheries to prevent disease.

**Sheep/Cattle Station Hand** - musters stock for branding, shearing, crutching, dipping and yarding for sale. They also maintain fences, bores, troughs and windmills.

#### Personal Requirements

- enjoy practical work
- able to undertake manual, and sometimes heavy, work
- able to handle animals with confidence and patience
- able to work for long hours, outdoors, in all kinds of weather conditions
- able to endure isolation and limited social contact
- mechanical aptitude.

#### Education and Training

You can work as a farm hand without formal qualifications. You will probably get some informal training on the job.

You can also become a farm hand through a traineeship in Agriculture. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Agriculture, Horticulture and

Conservation and Land Management Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

There are opportunities to progress quickly once skills are obtained and to specialise in certain areas including agribusiness enterprises.

Skilled farm hands may undertake further study and, in time, become farm managers, enter into share-farming partnerships, or purchase their own farming operation. Others go on to work in other businesses and government agencies that service rural communities and farmers/farm managers.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 <http://agrifoodskills.net.au>
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)
- The People in Dairy ☎ (03) 9620 7283  
🌐 [www.thepeopleindairy.org.au](http://www.thepeopleindairy.org.au)

#### Related Jobs

Farmer/Farm Manager (p 172); Fish Farm Hand (p 183); Forest Worker (p 193); Fruit and Vegetable Picker (p 195); Handyperson (p 209); Horticultural Tradesperson (p 216); Shearing Shed Hand (p 368); Wool Classer (p 439).

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### Farmer/Farm Manager 🌱

Also known as Crop Farmer, Farm Overseer and Livestock Farmer.

Farmers and farm managers undertake farming operations to raise livestock and cultivate crops, fruit, vegetables and other agricultural products.

A farmer is a self-employed person who farms their own land or a leasehold property rented from a landowner.

A farm manager is an employee who is paid a salary to manage a farm or group of farms.

Farmers and farm managers may perform the following tasks:

- decide or advise on the kind of crops to be grown, the area to be sown or planted and/or the livestock to be raised
- plan the type of farming activities to be undertaken, estimate operating costs and order supplies such as seed, fertiliser, livestock fodder and farm equipment
- recruit, coordinate and direct farm workers on crop growing and livestock raising
- plant, spray, fertilise, harvest and sell crops
- handle, load and transport livestock for showing, slaughter or sale
- clean and maintain buildings, sheds, pens, equipment and facilities to maintain health standards and high quality of produce
- monitor animal health and seek veterinary advice when necessary
- make sure there is adequate food supply, water and protection from the weather for livestock
- make sure temperature, ventilation and lighting conditions are comfortable for livestock kept indoors
- observe and record produce quality or livestock body weight and condition, adjusting management or feeding programs if required
- manage the strategic direction of the business
- manage the financial aspects of the business by controlling income and expenses
- plan activities to minimise environmental degradation, monitor environmental effects of farming activities and repair existing damage through programs such as tree planting.



Farmers and farm managers may specialise in enterprises such as cropping or horticulture. Others work with animals such as beef or dairy cattle, sheep, pigs or poultry. Many farmers and farm managers conduct mixed farming operations.

Farmers may work on large or small enterprises or they may need to travel between a number of properties to manage activities. They spend much of their time working outdoors.

#### Specialisations

**Permaculturalist** - cultivates plants and crops through the use of sustainable practices and renewable resources to minimise the impact upon local ecosystems while maximising natural productivity.

**Production Horticulturist** - is involved in the cultivation, growing and maintenance of such produce as berries, nuts, fruit, vegetables and other crops. These products can be exported as either fresh or dried produce, and production horticulturists are involved in all of the associated production processes.

#### Personal Requirements

- good at planning
- able to analyse and solve problems
- good organisational and supervisory skills
- good communication skills
- responsible approach and attitude
- enjoy working outdoors in all kinds of weather
- able to endure isolation and limited social contact
- able to handle animals with confidence and patience
- mechanical aptitude
- aptitude for working with computers
- able to work independently.

#### Education and Training

You can work as a farmer or farm manager without formal qualifications, although skills in farm management, crop management and/or animal husbandry are considered essential.

You may learn these skills from an experienced farmer or farm manager on a working farm or formally at an educational institution such as TAFE, university or an agricultural college. Courses range from certificates to degrees, which may focus on specific areas of agriculture or all aspects of farm management.

Entry to certificate, diploma and advanced diploma courses usually requires Year 10 and sometimes Year 12. Entry to degree courses usually requires you to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the institutions you are interested in for more information as requirements may change.

Certificate and diploma courses are widely available and offered by various Registered Training Organisations, including TAFE. Degrees are also widely available at universities in Victoria. Refer to institution handbooks for further details.

Costs, duration and entry requirements may vary between courses. See the online entry for Farmer/Farm Manager at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a farmer or farm manager through a traineeship in Agriculture or Rural Business. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Traditionally, farms in Australia have been owner-operated and the farmer self-employed. Such properties have often been owned by the one family over many decades.

As product markets have changed and new technologies have been introduced, many properties have merged into bigger farms, often run by employed farm managers. For all farmers and farm managers, the business of running a farm has become more complex and sophisticated.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)

#### Related Jobs

Agricultural Scientist (p 57); Agricultural Technical Officer (p 58); Aquaculture Technician (p 69); Beekeeper (p 86); Farm Hand (p 171); Fruit and Vegetable Picker (p 195); Horticultural Tradesperson (p 216); Jackaroo (p 236); Landcare Worker (p 241); Shearer (p 367); Stock and Station Agent (p 384); Wool Classer (p 439).

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#### Farrier

Farriers inspect, trim and shape horses' hooves. They make, fit and nail horseshoes or, in the case of race horses, racing plates or 'tips'.

Farriers may perform the following tasks:

- look at horses' legs and hooves while the animal is stationary as well as in motion to check for irregularities, interference, peculiarities in gait (how the horse walks) or abnormalities in size and shape of hooves
- talk to the horse's owner or trainer to decide on the type of shoe and nails required
- remove worn or faulty shoes and note wear patterns, foreign bodies, bruising, infections or deformities
- examine, clean, trim and shape hooves using knives, hoof cutters and rasps
- measure hooves, take a template of each hoof on a piece of cardboard and estimate the length of metal required for the shoes
- select and cut metal according to type, size and weight of shoes, and type of horse
- hold shoes against hooves to find out the amount of shaping required
- heat shoes in a forge, shape them on anvils and hammer them to size
- place and nail shoes to hooves and check that clips and clenched nails are smooth and lined up with the walls of each hoof
- remove steel shoes from horses before they race, replace with light aluminum shoes or 'tips' and after the race replace with the steel shoes
- work in the areas of corrective or surgical shoeing.

Farriers spend a great deal of time travelling to attend to horses, mainly in country or outer metropolitan areas. Weekend and after-



hours work is often necessary. Farriers must work very quickly and have the ability to handle horses, as they may be unpredictable or agitated.

Farriers usually wear protective equipment.

#### Personal Requirements

- physically fit
- good eyesight (may be corrected) and hearing
- enjoy working with horses
- awareness of personal and industrial safety
- good hand-eye coordination.

#### Education and Training

To become a farrier you usually have to complete an apprenticeship in Farriery - Trade, offered through Northern Melbourne Institute of TAFE - Epping Campus. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Most farriers are self-employed, and may employ an assistant or apprentice. Farriers offer their services to trainers, owner-trainers and horse owners at trotting stables, racing stables, studs, riding clubs and hunt clubs, training establishments, shows and at private properties. A considerable amount of farriery work is performed on leisure horses such as hacks and ponies.

The majority of job openings are expected to come from people leaving the occupation.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 <http://agrifoodskills.net.au>
- Racing Victoria Ltd ☎ (03) 9258 4258  
✉ information@racingvictoria.net.au  
🌐 [www.racingvictoria.net.au](http://www.racingvictoria.net.au)

#### Related Jobs

Engineering Tradesperson - Fabrication (p 164); Horse Manager (p 214); Horse Trainer (p 215); Jockey (p 238).

## Fashion Coordinator

Fashion coordinators arrange and supervise the marketing of fashion clothing for manufacturing houses, textile firms and retail stores.

Fashion coordinators may perform the following tasks:

- plan for and advise on fashion lines and assess garments' potential for publicity purposes
- promote garments to the press and public
- organise and compere fashion parades
- supervise the photography of items and clothing selected for promotion
- liaise with fabric mills, wholesalers and suppliers to make sure that correct colourings and textures are produced
- keep up to date with general fabric developments
- provide fashion direction to buyers.

Fashion coordinators may be required to travel interstate or overseas to research the latest fashion trends.

Fashion coordinators working in large retail stores may coordinate the work of several fashion departments to promote a wider range of products.

#### Personal Requirements

- enjoy artistic and creative activities
- a natural flair for fashion
- good organisational skills
- good communication and negotiation skills.

#### Education and Training

To become a fashion coordinator you usually have to complete a certificate or diploma in clothing production/fashion design. Entry to the certificate courses usually requires Year 10. Entry to the diploma courses usually requires completion of Year 12. Applicants may be required to address selection criteria and submit a portfolio. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Fashion Coordinator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Employment Opportunities

The fashion industry is highly competitive and success depends on talent and innovation. Extensive experience in the industry is usually required for promotion to the position of fashion coordinator. Retail clothing sales, clothing manufacture and marketing experience may provide valuable skills. Success often depends on having a quality portfolio, which often needs to be tailored for specific areas of the industry.

Competition is very strong for the limited opportunities available.

#### For Further Information

- Council of Textile and Fashion Industries of Australia  
☎ (03) 8680 9400 ✉ info@tfia.com.au 🌐 [www.tfia.com.au](http://www.tfia.com.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Fashion Designer (p 174); Model (p 280); Retail Buyer (p 354); Sales Representative (p 359); Theatrical Costume Maker and Designer (p 404).

## Fashion Designer

Fashion designers develop new styles and products for clothing, apparel and accessories by creating original designs, or by adapting fashions to suit local conditions and trends, and cutting and machining sample garments based on these designs.

Fashion designers may perform the following tasks:

- illustrate concepts by producing storyboard and specification drawings
- use computers to manipulate and develop patterns and modify designs
- research and develop fabrics and accessories for production of garments
- make patterns, or work closely with patternmakers, to draft patterns from sketches or specification drawings
- select fabric, colour and trim, and undertake cutting and machining of sample garments
- fit samples and discuss them with management, sales and manufacturing staff, and contribute to costing estimates
- finalise specification sheets with detailed sketches and trim details
- approve final samples before they go into production



- liaise with production staff during mass production of garments, and participate in quality control
- travel overseas to gain information on current fashion trends
- control merchandising and retailing of garments.

#### Personal Requirements

- enjoy artistic and creative activities
- creative flair and drawing talent
- good communication skills
- good colour and design sense
- good hand-eye coordination
- able to work independently or as part of a team
- able to work under pressure.

#### Education and Training

To become a fashion designer you usually have to complete a certificate, diploma or degree in fashion design. Entry to the certificate courses usually requires at least Year 10. Entry to the diploma courses usually requires Year 12. To get into the degree courses below you usually need to gain your VCE with English. Applicants may be required to attend an interview, address selection criteria, complete a design exercise and/or submit a portfolio of their work. Contact the institutions you are interested in for more information as requirements may change.

Relevant certificate and diploma courses are widely available in Victoria and are offered by Registered Training Organisations, including TAFE. Contact your preferred institution for further details.

#### Degree Courses

##### *RMIT University - Brunswick Campus:*

Bachelor of Applied Science (Fashion and Textiles Merchandising), 1 year full time (entry via Advanced Diploma of Fashion and Textiles Merchandising)

Bachelor of Applied Science (Fashion Technology), 1 year full time (entry via Diploma of Applied Fashion Design and Technology)

##### *RMIT University - City Campus:*

Bachelor of Design (Fashion), 4 years full time

##### *Whitehouse Institute of Design - Melbourne Campus:*

Bachelor of Design (Fashion Design), 3 years full time

#### Employment Opportunities

Fashion designers work for manufacturing houses (designing ready-to-wear clothing), for small businesses (designing one-off garments), or for retailers (selling directly to the public). They tend to specialise in one area, for example, menswear, children's wear, knitwear or lingerie. Some designers work from home as designer-dressmakers; others become costume designers in theatre, opera, film and television.

Opportunities also exist for specialist work in an established business as a designer, cutter, patternmaker/grader, sample machinist or general machinist, or subcontractor for an established business.

Some fashion designers maintain and repair clothing and uniforms in corporate establishments or carry out alterations for clients of boutiques, bridal outfitters and menswear outlets. Fashion designers may also become trainers in the industry.

The fashion industry is highly competitive and success depends on talent and determination. Vacancies are extremely limited for trainees wanting to work their way up to fashion designing. Some employers promote employees who have gained practical experience in the industry.

A limited number of vacancies for qualified and experienced designers exist in both large fashion companies and smaller clothing manufacturing firms. Most vacancies occur in large capital cities,

especially Sydney and Melbourne. Some opportunities exist for talented and experienced designers to work on a freelance basis.

Australia's designers are gradually receiving recognition in the overseas fashion market and the field is open to both men and women.

#### For Further Information

- Australian Fashion Council ☎ (03) 8680 9400  
✉ info@tfia.com.au 🌐 www.australianfashioncouncil.com
- Australian Industry Group 🌐 www.zoomplus.aigroup.asn.au
- Council of Textile and Fashion Industries of Australia  
☎ (03) 8680 9400 ✉ info@tfia.com.au 🌐 www.tfia.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au

#### Related Jobs

Fashion Coordinator (p 174); Industrial Designer (p 223); Interior Decorator (p 233); Milliner (p 275); Textile Designer (p 401); Theatrical Costume Maker and Designer (p 404).

## Fashion Business @NMIT

[www.nmit.edu.au](http://www.nmit.edu.au)  
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## Film and Television Camera Operator

Also known as Camera Operator.

Film and television camera operators set up, position and operate equipment in studios or on location to photograph people, events and scenes.

Film camera operators use 16 mm and 35 mm film cameras or digital video for motion pictures, whereas television and video camera operators use cine-electronic television or digital video and video cameras for direct telecast and for recording.

Film and television camera operators may perform the following tasks:

- discuss with the director the types of film, video and lenses to be used as well as focus and distance settings, and camera angles
- select and set up equipment and accessories
- check that lighting has been organised, or set up lights as required
- view scenes through viewfinders, make final adjustments and photograph scenes
- monitor equipment during operation
- move cameras and adjust controls to follow the action of scenes being photographed
- consult with other technical workers such as light or sound technicians to obtain required results
- supervise assistants during the production phase.

Film and television camera operators work as part of a team and are often required to work long, irregular hours, including nights and weekends. They may need to travel to remote areas.

#### Specialisation

**Director of Photography** - oversees the lighting and camera crew in the film production unit. They instruct camera operators on camera set-up, angles, distance and movement, then signal cues to start and stop filming. After each day's filming, the director of photography checks the 'rushes' (the scenes shot that day) and decides whether re-filming is necessary.



### Personal Requirements

- able to accept direction
- highly organised
- attention to detail
- patience
- able to work under pressure
- good communication skills
- creative
- able to work as part of a team.

### Education and Training

You can work as a film and television camera operator without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications in screen, film and television or media studies.

Certificate and diploma courses in these areas are widely available and are offered by Registered Training Organisations, including TAFE. Degree courses are also widely available and are offered by most universities in Victoria.

Entry to the certificate and diploma courses usually requires at least Year 10. Entry to the advanced diploma and degree courses usually requires you to gain your VCE with English. Applicants may also be required to do a pre-selection test, attend an interview and/or submit a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information.

You can also become a film and television camera operator through a traineeship in Media. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

Costs, duration and entry requirements may vary between courses. See the online entry for Film and Television Camera Operator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Screen and Media or Film, TV and Radio Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

A drivers licence is an advantage as camera operators are often required to drive to and from locations.

### Employment Opportunities

Camera operators are employed by television broadcasters and film companies. The demand for camera operators depends on levels of investment in film and television production, and the introduction of new technology. Competition for entry-level positions is strong and people appointed have usually been employed in some other aspect of film and television production. Promotion to the level of camera operator depends on demonstrated skills and proficiency, and full knowledge of the various types of cameras used.

### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Film and Television Editor (p 176); Film and Television Lighting Operator (p 177); Film and Television Producer's Assistant (p 178); Film, Stage and Television Director (p 178); Photographer (p 317); Production Crew Member (p 334).

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## Film and Television Editor

Film and television editors edit and assemble films and videos from raw, unedited footage ('dailies' or 'rushes'), taking into account the mood, pace, climax, etc. of films or television productions.

Film and television editors may perform the following tasks:

- view processed film and video with production personnel to analyse, evaluate and select scenes and to decide which scenes need to be improved or re-shot
- trim film and copy video segments to specific lengths, arrange and join them in sequence
- import, compile and render digital video footage on a computer to enable the content to be presented with maximum effect
- edit and balance music and effects
- select stock shots from a film library and edit and incorporate them into film or video.

There is often a need to work long or irregular hours.

### Personal Requirements

- artistic flair
- patience
- attention to detail
- able to work as part of a team
- lateral thinking.

### Education and Training

You can work as a film and television editor without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications in screen, film and television or media studies.

Certificate and diploma courses in these areas are widely available and are offered by Registered Training Organisations, including TAFE. Degree courses are also widely available and are offered by most universities in Victoria.

Entry to the certificate and diploma courses usually requires at least Year 10. Entry to the advanced diploma and degree courses usually requires you to gain your VCE with English. Applicants may also be required to attend an interview and/or submit a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information.

You can also become a film and television editor through a traineeship in Media. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.



Costs, duration and entry requirements may vary between courses. See the online entry for Film and Television Editor at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Screen and Media or Film, TV and Radio Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Film and television editors work for film companies, television stations and video production houses. They may also work on a freelance basis.

Competition for jobs is very strong and interstate and/or overseas experience is often needed to enhance employment prospects. Completion of a course will not guarantee entry to this occupation. Employment and advancement depend on the person having considerable experience and talent.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Film and Television Camera Operator (p 175); Film and Television Producer's Assistant (p 178); Film, Stage and Television Director (p 178).

## Film and Television Lighting Operator

Also known as Lighting Designer and Gaffer.

Lighting operators position, set up and operate lighting equipment to light sets or studios during stage performances, television broadcasts or film productions.

Lighting operators are responsible, both creatively and technically, for lighting interior and outside scenes and must achieve the desired effects through the placement, intensity and colour of lighting.

Lighting operators may perform the following tasks:

- study scripts and discuss lighting effects with production staff
- coordinate activities with electrical crew when putting up metal scaffolding to support lighting equipment
- select and position equipment such as spotlights and floodlights
- arrange and connect cables to electrical supply using portable junction boxes
- operate lights during filming or broadcasting and vary intensity of light using various filters and reflective screens

- maintain and repair lighting equipment
- arrange for transportation of equipment to remote locations.

In film production, lighting operators are called gaffers and their assistants are known as best boys.

Lighting operators may be required to travel to remote locations. They usually work irregular hours or shifts.

#### Personal Requirements

- patience
- enjoy the technical aspects of film and television production
- able to work as part of a team
- creative.

#### Education and Training

You can work as a film and television lighting operator without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate and diploma courses below usually requires at least Year 10. Applicants may also be required to attend an interview and/or submit a folio of their work. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a film and television lighting operator through a traineeship in Media or Live Production, Theatre and Events (Technical Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate IV in Screen and Media

*Footscray City College:*

Certificate IV in Screen and Media

#### Diploma Courses

*Box Hill Institute of TAFE - Whitehorse Campus:*

Diploma of Live Production, Theatre and Events (Technical Operations)

*Goulburn Ovens Institute of TAFE - Benalla Campus:*

Diploma of Live Production, Theatre and Events (Technical Operations)

*TAFE Victoria - various locations:*

Diploma of Screen and Media

*TAFE Victoria - various locations:*

Advanced Diploma of Screen and Media

*University of Ballarat (TAFE Division) - SMB Campus:*

Diploma of Live Production, Theatre and Events (Technical Production)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment or Screen and Media Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Lighting operators are employed by television stations and film and television production companies. Competition for entry-level positions is very strong.

#### For Further Information

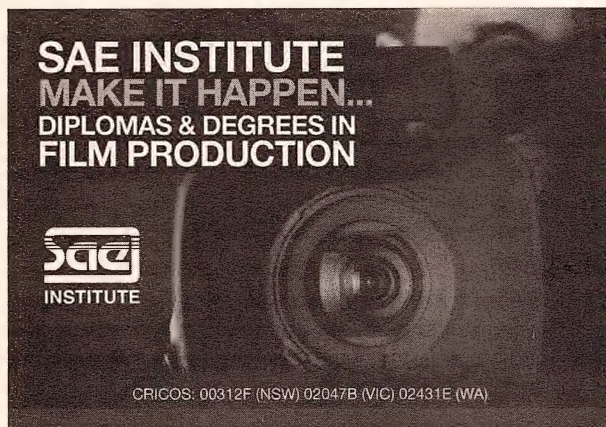
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)



- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ mail@alliance.org.au 🌐 www.alliance.org.au

#### Related Jobs

Film and Television Camera Operator (p 175); Film, Stage and Television Director (p 178); Photographer (p 317); Production Crew Member (p 334); Projectionist (p 336); Stage Manager (p 382); Theatre Mechanist (p 403).



### Film and Television Producer's Assistant

Also known as Production Assistant.

Film and television producers' assistants provide technical and other assistance for the production, recording and/or broadcasting of artistic performances.

Film and television producers' assistants may perform the following tasks:

- provide clerical assistance, compile details of program requirements and arrange artists' rehearsal times
- assist with the preparation of music, written material and photography to be included in the production of the program
- advise studio floor personnel of camera cues
- keep records of filmed sequences for visual and narrative flow.

#### Specialisation

**Film and Television Producer** - plans and manages the technical and artistic resources required in the production of television programs or films. They oversee the budget, recruitment of staff, script development, and coordination of sets, locations and equipment. They often have extensive industry experience, proven entrepreneurial ability, and sometimes also act as directors.

#### Personal Requirements

- organisational and administrative skills
- attention to detail
- an interest in film and/or television
- able to work as part of a team.

#### Education and Training

You can work as a film and television producer's assistant without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications in screen, media or film and television production. Relevant certificate, diploma and advanced diploma courses are widely available and are offered by Registered Training Organisations, including TAFE. Degree courses are also widely available at most universities in Victoria.

Entry to the certificate and diploma courses usually requires at least Year 10. Entry to the advanced diploma courses usually requires

completion of Year 12. To get into the degree courses you usually need to gain your VCE with English. Applicants may also be required to attend an interview and/or submit a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information.

You can also become a film and television producer's assistant through a traineeship in Creative Industries (Media). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

Costs, duration and entry requirements may vary between courses. See the online entry for Film and Television Producer's Assistant at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Screen and Media or Film, TV and Radio Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Film companies, television stations, video production houses and theatre companies employ film and television producers' assistants.

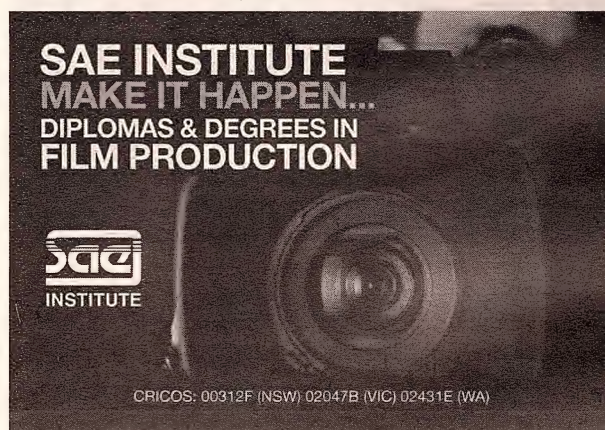
Competition is very high for available positions, and patience and persistence are necessary to succeed.

#### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ mail@alliance.org.au 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Film and Television Camera Operator (p 175); Film and Television Editor (p 176); Film, Stage and Television Director (p 178).



### Film, Stage and Television Director

Also known as Movie Director, Theatrical Director and TV Director.

Film, stage and television directors direct the overall production, or specific aspects of the production of films, television or stage shows. They have the final responsibility for making sure that everything is ready to be filmed or performed.

Film, stage and television directors may perform the following tasks:

- study scripts to determine artistic interpretation
- plan and arrange for set designs, costumes, sound effects and lighting



- select actors for roles in the production by viewing performances and conducting screen tests and auditions
- plan, direct and coordinate filming or taping, instructing camera operators on the position and the angle of their shots, and coordinating changes in lighting and sound
- edit film or videotape and add soundtrack and other effects
- coordinate the activities of the studio/stage crew, performers and technicians during rehearsals and productions.

#### Personal Requirements

- artistic flair
- good communication skills
- able to remain calm under pressure
- able to exercise authority.

#### Education and Training

You can work as a film, stage and television director without formal qualifications. Entry to this occupation usually requires extensive experience in the film, television or theatre industries. However, your employment prospects may be improved if you have qualifications.

Relevant certificate, diploma, advanced diploma and degree courses are widely available in Victoria and are offered by universities and Registered Training Organisations, including TAFE.

Entry to certificate and diploma courses usually requires at least Year 10. Entry to advanced diploma and degree courses usually requires you to gain your VCE with English. Applicants may also be required to do pre-selection tests, attend an interview and/or submit a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information.

You can also become a film and television director through a traineeship in Screen and Media. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Screen and Media or Film, TV and Radio Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Film companies, television stations, video production houses and theatre companies employ film, stage and television directors.

Competition for jobs is very high, and interstate and/or overseas experience is often needed to enhance employment prospects. Completion of a course will not guarantee entry to this occupation. Employment and advancement depend on considerable experience and talent.

#### For Further Information

- Australian Broadcasting Corporation (VIC) ☎ (03) 9626 1500  
🌐 [www.abc.net.au](http://www.abc.net.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Actor (p 51); Dancer (p 140); Film and Television Camera Operator (p 175); Film and Television Editor (p 176); Film and Television Lighting Operator (p 177); Film and Television Producer's Assistant (p 178); Multimedia Developer (p 281); Stage Manager (p 382).

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### Financial Dealer and Broker

Also known as Investment Adviser and Finance Broker.

Financial dealers and brokers conduct financial market transactions on behalf of clients and offer advice on financial matters.

Financial dealers and brokers may perform the following tasks:

- get information on securities, market conditions, government regulations and financial circumstances of clients
- deal in the marketplace on behalf of clients and provide financial advice
- record and give 'buy' and 'sell' orders
- calculate and record costs of transactions
- develop lists of appropriate investments for clients
- plan buying and selling activities.

#### Specialisations

**Commodities Trader** - brings together buyers and sellers of commodities to negotiate private sales and arrange sales through established marketplaces.

**Financial Market Dealer** - buys and sells securities within the financial market and trades and distributes financial securities on behalf of financial institutions.

**Financial Planner** - provides financial advice to clients covering all areas of finance, including taxation, retirement, redundancy, superannuation, insurance and estate planning.

**Investment Banker/Merchant Banker** - offers financial products and services, handles large financial transactions and operates as an intermediary in the professional and commercial sectors of the finance industry. They are also involved in the money market, corporate lending and investment banking.

**Stockbroker** - buys and sells stocks and bonds on behalf of clients.

#### Personal Requirements

- good communication skills
- able to make accurate calculations quickly
- aptitude for using computers
- able to work independently



- able to work under pressure
- aptitude for research
- good with numbers
- analytical skills
- interested in the financial market.

#### Education and Training

To become a financial dealer and broker you usually have to study a commerce, accounting, finance, economics or actuarial studies degree at university. However, entry to this occupation may be improved if you have a double degree (possibly combining a relevant field with law). Degrees in these areas are available at most universities in Victoria.

To get into these courses, you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

#### Additional Information

Depending on the specific role, you may be required to be licensed or registered in order to work in this field. Details can be found on the Australian Securities and Investments Commission website ([www.asic.gov.au](http://www.asic.gov.au)). You may also be required to hold a certain level of membership with a particular professional association. Contact the Financial Planning Association or the Financial Services Institute of Australasia (Finsia) for further information.

Postgraduate qualifications are usually required to become fully qualified as a financial dealer and broker. Courses are run through Finsia and the Financial Planning Association. Contact these associations for further information.

#### Employment Opportunities

Entry to this career is competitive. Firms usually recruit applicants who can demonstrate a strong academic background. It takes some time to gain the experience required for advancement, and many firms demand specialised qualifications or relevant experience.

Financial dealers and brokers work in stockbroking firms, financial planning organisations, banks, building societies, accounting and law practices and other organisations within the finance and investment sector.

People in this occupation have a legal obligation to provide sound advice, and consequently the job has considerable responsibility attached to it. Once experience has been gained, opportunities for advancement are generally very good.

While there is an increasing demand throughout the country for financial advisory services, banks and other financial institutions are increasingly focusing their dealer functions in their head offices in Sydney and Melbourne.

#### For Further Information

- Australian Financial Markets Association (AFMA)  
☎ (02) 9776 7955 ✉ [info@afma.com.au](mailto:info@afma.com.au)  
🌐 [www.afma.com.au](http://www.afma.com.au)
- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@funion.org.au](mailto:careerscentre@funion.org.au) 🌐 [www.funion.org.au](http://www.funion.org.au)
- Financial Planning Association of Australia (Head Office)  
☎ 1800 337 301 ✉ [fpa@fpa.asn.au](mailto:fpa@fpa.asn.au) 🌐 [www.fpa.asn.au](http://www.fpa.asn.au)
- Finsia ☎ 1300 346 742 ✉ [membership@finsia.com](mailto:membership@finsia.com)  
🌐 [www.finsia.com](http://www.finsia.com)

#### Related Jobs

Accountant (p 47); Bank Officer (p 83); Debt Collector (p 141); Economist (p 154); Financial Dealer's Assistant (p 181); Insurance

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Agent (p 230); Insurance Officer (p 232); Land Economist (p 241); Valuer (p 424).

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### Financial Dealer's Assistant

Also known as Money Market Clerk, Scrip Clerk, Securities Clerk and Stockbroker's Clerk.

Financial dealers' assistants assist stockbrokers and stockbroking firms in buying and selling shares, handling share certificates, research and investment advising.

Financial dealers' assistants may perform the following tasks:

- record sales documentation received from clients and other stockbroking firms
- check the validity of documents and facilitate share transaction settlements
- collate, buy and sell contract notes and despatch them to clients
- process sales and draw cheques
- contact share registries and process dividends
- record data and undertake electronic transfer of securities
- assist in research for advice to clients.

Financial dealers' assistants may be employed in any of the following areas: dividends, accounts, scrip (share certificates) research, money markets and investment advice. In a large firm an assistant may work in only one of these fields, whereas in a smaller firm their work may include tasks in several of these areas.

#### Specialisation

**Para Planner** - assists financial planners and other finance professionals by providing technical assistance, such as conducting research on listed securities, managed funds, market conditions and government regulations. They may also assist financial planners in preparing financial plans and client reviews.

#### Personal Requirements

- able to make calculations quickly and accurately
- able to work independently and under pressure
- able to work as a team player
- good communication skills
- aptitude for research and financial writing
- able to think creatively and solve problems.

#### Education and Training

To become a financial dealer's assistant you usually have to complete a certificate in financial services. However, entry to this occupation may be improved if you have a relevant diploma. Entry to the certificate courses below usually requires at least Year 10. Entry to the diploma courses usually requires completion of Year 12.

You may be able to study through distance education. Contact the institutions you are interested in for further information.

You can also become a financial dealer's assistant through a traineeship in Financial Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Sunraysia Institute of TAFE - Mildura Campus:*

Certificate IV in Financial Services Finance/Mortgage Broking

*TAFE Victoria - various locations:*

Certificate III in Financial Services

Certificate III in Financial Services (Accounts Clerical)

Certificate IV in Financial Services

Certificate IV in Financial Services (Accounting)

#### Diploma Courses

*Holmesglen Institute of TAFE - Chadstone Campus:*

Diploma of Financial Services (Financial Planning)

*East Gippsland Institute of TAFE - Bairnsdale Campus:*

Diploma of Financial Services

*RMIT (TAFE Division) - City Campus:*

Diploma of Financial Services

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Diploma of Financial Services

#### Employment Opportunities

Financial dealers' assistants mainly work in stockbroking firms, although small numbers are employed by financial planning organisations, banks, building societies and other organisations in the finance and investment sector.

Entry to this career is competitive and advancement requires a great deal of experience, expertise and usually some further training.

Job opportunities depend on the economic climate, stock market activity and turnover, and the demand for financial advice. The increase in electronic transaction processing, for example through the Clearing House Electronic Subregister System (CHES), and the trend for banks and other financial institutions to limit their local dealer functions, has seen a tendency toward centralising operations in head offices based in Brisbane, Melbourne and Sydney.

#### For Further Information

- Australian Financial Markets Association (AFMA)  
☎ (02) 9776 7955 ✉ [info@afma.com.au](mailto:info@afma.com.au)  
🌐 [www.afma.com.au](http://www.afma.com.au)
- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@fsunion.org.au](mailto:careerscentre@fsunion.org.au) 🌐 [www.fsunion.org.au](http://www.fsunion.org.au)
- Financial Planning Association of Australia (Head Office)  
☎ 1800 337 301 ✉ [fpa@fpa.asn.au](mailto:fpa@fpa.asn.au) 🌐 [www.fpa.asn.au](http://www.fpa.asn.au)
- Finsia ☎ 1300 346 742 ✉ [membership@finsia.com](mailto:membership@finsia.com)  
🌐 [www.finsia.com](http://www.finsia.com)

#### Related Jobs

Accounts Clerk (p 50); Bank Officer (p 83); Debt Collector (p 141); Financial Dealer and Broker (p 179); Insurance Officer (p 232).

### Fire Extinguisher Servicer

Fire extinguisher servicers maintain fire-fighting equipment, including all types of hand-held fire extinguishers and fire hoses used to protect property against fires.



Fire extinguisher servicers may perform the following tasks:

- take fire extinguishers apart and examine parts for defects
- replace defective parts
- clean the fire extinguishers and refill them with fire extinguishing agents
- test that extinguishers meet specifications using special testing equipment
- record all defects and report them to a supervisor
- complete equipment surveys and reports.

#### Personal Requirements

- enjoy practical work
- good communication skills
- neat personal appearance
- physically fit.

#### Education and Training

You can work as a fire extinguisher servicer without formal qualifications. You will probably get some informal training on the job.

You can also become a fire extinguisher servicer through a traineeship in Asset Maintenance (Fire Protection Equipment). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

A current drivers licence is essential.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Fire extinguisher servicers are employed by fire equipment suppliers and consultants. Training is ongoing because new equipment and techniques are continually being introduced.

Employment opportunities depend on regulations and Australian standards relating to fire-fighting equipment, and technological advances in fire-fighting and prevention equipment.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Fire Protection Association Australia ☎ (03) 9890 1544 or 1300 731 922 (FREECALL) ✉ fpaa@fpaa.com.au  
🌐 www.fpaa.com.au

#### Related Jobs

Aviation Firefighter (p 82); Firefighter (p 182).

## Firefighter

Firefighters control and extinguish fires and protect life, property and the environment as members of fire brigades.

Firefighters may perform the following tasks:

- respond to fire alarms and emergency calls
- undertake activities designed to prevent fires
- drive or crew firefighting appliances or other vehicles to fires or incident scenes
- provide support in response to natural disasters such as floods and cyclones
- operate pumps, spray foam or water from hoses, portable extinguishers or other appliances to extinguish fires, or to disperse

or neutralise dangerous substances such as chemicals and petroleum

- rescue people stranded or trapped in dangerous situations or inaccessible places using ladders or elevating platforms, or by cutting openings in buildings and/or crashed vehicles to free occupants
- respond to industrial accidents
- administer first aid and oxygen therapy
- operate radio networks and computer response and reporting systems
- take part in ongoing training in firefighting techniques and in demonstrations and fire drills
- visit buildings to assess entry/exit points and locations of hydrants, and identify potential fire hazards
- inspect firefighting equipment and hydrants
- undertake public education tasks including school visits, demonstrations, first aid, firefighting training and lectures
- train industrial and volunteer firefighters and give instructions in evacuation, fire prevention, firefighting, rescue and use of breathing apparatus.

Firefighters wear uniforms, breathing apparatus and other personal protective equipment when fighting fires and dealing with other incidents. They attend daily drills where they practise skills such as driving, handling equipment and operating ladders. They are required to work rotating shifts in order to maintain a 24-hour service. Because of the nature of their shift work, firefighters work several days on followed by several days off.

#### Personal Requirements

- good communication skills
- able to work as part of a team
- enjoy practical work
- physically fit and able to pass a medical examination
- able to work under pressure
- able to work at heights and in confined spaces
- willing to undertake ongoing training and professional development.

#### Education and Training

You can work as a firefighter without formal qualifications. You will receive training on the job and through in-house training courses.

There are no formal educational prerequisites to apply to become a firefighter with the Metropolitan Fire and Emergency Services Board (MFB) or the Country Fire Authority (CFA).

Applicants will be required to undertake various stages of a selection process that includes a written test, physical tests, and an interview. Further details of the selection process are available on the MFB or CFA websites.

Employment with the MFB begins with a 15-week training course at the MFB Training and Fire Safety Complex, as a recruit firefighter. Firefighters then undertake a further three-year continuation training program while assigned to duties at a fire station. They are required to respond to fire calls and take part in station work. On successful completion of the continuation training, appointment is made to the rank of Qualified Firefighter.

CFA recruits undertake an initial 16-week training program at CFA Training College, Fiskville. Once this program has been successfully completed, they are then appointed to a fire station for three years continuation training on the job. On successful completion of this training, appointment is made to Qualified Firefighter.



### Additional Information

For entry into this occupation with the MFB, you must be an Australian citizen or have permanent resident status and hold a current drivers licence. For entry into this position with the CFA, you must be an Australian citizen or have permanent resident status and hold a non-probationary/full manual drivers licence.

Applicants selected for appointment will be required to undergo a police records check and pass a medical examination with the Brigade Medical Officer.

MFB firefighters will be stationed within the Melbourne metropolitan fire district. CFA firefighters will be stationed in outer metropolitan Melbourne and country Victoria.

### Employment Opportunities

The two major employing organisations in Victoria are the MFB and the CFA. Applications for the MFB and CFA are accepted through the year. Competition for available positions is very strong.

Federal and state public services and some large commercial and industrial organisations employ experienced firefighters as fire prevention officers. Local governments in rural locations employ firefighters as bushfire prevention officers.


Promotion within the MFB and CFA is available to qualified individuals selected on merit.

### For Further Information

- Country Fire Authority ☎ (03) 9262 8249  
✉ [ffrecruitment@cfa.vic.gov.au](mailto:ffrecruitment@cfa.vic.gov.au) 🌐 [www.cfa.vic.gov.au](http://www.cfa.vic.gov.au)
- Metropolitan Fire and Emergency Services Board  
☎ (03) 9662 2311 🌐 [www.mfb.vic.gov.au](http://www.mfb.vic.gov.au)

### Related Jobs


Aviation Firefighter (p 82); Fire Extinguisher Servicer (p 181).



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## Fish Farm Hand

Also known as Fish Farmer.

Fish farm hands assist with the growing and cultivation of fish and the maintenance of fish farm premises and equipment.

Fish farm hands may perform the following tasks:

- feed and grade fish and monitor their growth
- assist with farm layout and the construction of nets, long-lines and/or cages
- check and look after all equipment and fish housing
- operate pumps and other equipment
- test and check on water quality
- remove dead or dying fish
- operate lifting equipment such as forklifts and small cranes
- handle marine vessels (e.g. barges)
- harvest fish and sort and pack for transportation
- maintain farm records.

Fish farm hands may be employed in either finfish farming or shellfish farming. They usually work outside, either on or in the water, and at shore-based facilities. Fish farms are generally located in sheltered waters. Most fish farm hands are expected to work overtime, particularly in the summer months. Some employers also require a diving qualification and/or a licence to operate a barge.

### Personal Requirements

- enjoy outdoor work
- a reasonable level of physical fitness
- able to swim.

### Education and Training

You can work as a fish farm hand without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

You can also become a fish farm hand through a traineeship in Seafood Industry (Aquaculture). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**East Gippsland Institute of TAFE - SEAMEC Maritime Centre:**

- Certificate II in Seafood Industry (Aquaculture)
- Certificate III in Seafood Industry (Aquaculture)

**Northern Melbourne Institute of TAFE - Epping Campus:**

- Certificate II in Seafood Industry (Aquaculture)
- Certificate III in Seafood Industry (Aquaculture)

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Seafood Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Fish farm hands are employed by aquaculturalists, government fisheries authorities, tertiary institutions and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Fish farming has developed in response to the dwindling natural supplies of fish and to provide greater consistency in product quality.

### For Further Information

- Seafood Services Australia ☎ (07) 3633 6777 or 1300 130 321  
(Toll Free) ✉ [ssa@seafoodservices.com.au](mailto:ssa@seafoodservices.com.au)  
🌐 [www.seafood.net.au](http://www.seafood.net.au)



## Related Jobs

Aquaculture Technician (p 69); Deck Hand (p 141); Diver (p 149); Farm Hand (p 171); Fisheries Officer (p 184); Seafood Processor (p 363).

## Fisheries Officer ✱

Also known as Marine Officer and Fishing Inspector.

Fisheries officers are responsible for the management, conservation and preservation of state and territory fisheries resources. They work to make sure that these resources are not endangered or over-exploited.

Fisheries officers may perform the following tasks:

- patrol and investigate waterways for unlawful fishing activities and/or the removal of protected marine life
- make sure that relevant laws and regulations are obeyed
- inspect fishing vessels, fishing gear and processing establishments to ensure compliance
- survey oyster, pearling, fishing and prawning leases to make sure that regulations are observed
- advise industry personnel on fishing regulations, export standards and the renewal of fishing licences
- check that fish are sold through legal markets and that fish markets do not sell undersized fish
- investigate alleged breaches of legislation
- prepare reports and provide evidence in court when required
- assist in the supervision of shark nets
- identify, survey and monitor areas and activities that affect fish and their habitats
- promote marine management programs and policies

- educate, advise and provide information on a wide range of topics relating to fish and their protection
- assist other agencies by responding to emergency situations such as oil spills and the beaching of whales
- provide assistance in research programs
- keep vessels and equipment in good order
- produce statistical reports and undertake other clerical duties.

The duties of fisheries officers vary greatly across the states and territories. The type of work they do often depends on the size and type of commercial fishing and related industry in their region.

Fisheries officers may also serve as fisheries observers on naval patrol boats, or they may be responsible for wildlife protection.

Fisheries officers are required to wear uniforms. They work irregular hours, including weekends, public holidays and nights. They are often required to move around the state or territory and may be absent from their headquarters for long periods. They work in all weather conditions and may have to sleep in vehicles, tents or boats.

### Specialisations

**Boating and Fisheries Patrol Officer** - is responsible for enforcing the laws which relate to boating in marine parks and protective zones.

**Fisheries Observer** - is responsible for collecting information on fishing operations, catches and the interaction of the vessel with the environment, for fisheries managers, the fishing industry, research organisations and the community.

### Personal Requirements

- physically fit
- normal colour vision
- good oral and written communication skills
- good negotiation and conflict resolution skills
- enjoy outdoor work.



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NCDW is an initiative of the Career Industry Council of Australia (CICA) funded by the Department of Education, Employment and Workplace Relations (DEEWR)



### Education and Training

To become a fisheries officer in Victoria you usually have to complete a Certificate III in Seafood Industry (Fisheries Compliance). For more information, contact the Department of Primary Industries - Fisheries.

You can also become a fisheries officer through a traineeship in Seafood Industry (Fisheries Compliance). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

A drivers licence, a Coxswains certificate (available from Transport Safety Victoria, Maritime Division) and an approved scuba diving certificate are desirable. The Department of Primary Industries generally requires that applicants have gained practical experience relevant to the department's work. Applicants are also expected to have knowledge of fisheries and environmental practices.

### Employment Opportunities

Fisheries officers are employed by the Department of Primary Industries. Entry to this occupation is very competitive. With experience and further training, fisheries officers may move into professional science positions or into general management. Employment opportunities are determined by government policy and funding. Positions are advertised in local newspapers. Officers performing duties on behalf of the Australian Fish Management Authority may be required to perform duties anywhere in Australia.

### For Further Information

- Department of Primary Industries - Fisheries  
[www.dpi.vic.gov.au](http://www.dpi.vic.gov.au)
- Transport Safety Victoria, Maritime Division ☎ (03) 9655 3399  
[www.marinesafety.vic.gov.au](http://www.marinesafety.vic.gov.au)

### Related Jobs

Aquaculture Technician (p 69); Deck Hand (p 141); Fish Farm Hand (p 183); Forest Technical Officer (p 192); Forester (p 194); Marine Biologist (p 254); Park Ranger (p 309); Police Officer - State (p 327); Primary Products Inspector (p 330).

## Fitness Instructor

Also known as Exercise Professional, Aerobics Instructor, Gym Instructor, Personal Trainer, Group Exercise Instructor and Aqua Instructor.

Fitness instructors are involved in the assessment, teaching, training and supervision of a variety of people in health and fitness clubs, gymnasiums, sports centres and community recreation organisations.

Fitness instructors may perform the following tasks:

- assess the needs and capabilities of individuals through weighing, measuring and conducting fitness tests to check blood pressure, heart rate and lung capacity
- provide training and assistance to individuals and groups by preparing a routine of exercises to music
- provide advice to individuals on the correct method of exercising with weightlifting equipment, exercise bikes, treadmills and other training and exercise machines
- devise personal exercise programs for individuals according to age and level of fitness
- provide instruction in a variety of fitness activities
- assist in the cleaning and general maintenance of the centre and make sure that equipment is maintained and correctly set up.

Fitness instructors may specialise in fields such as aerobics, aqua-fitness, personal training, exercise for specific groups (such as older people), resistance training and swimming.

Fitness instructors may be employed on a casual basis and work at a number of different locations, including fitness centres, clinical settings, private practice and in the workplace. Shift work is often involved, including early mornings and late nights.

### Specialisation

**Specialist Exercise Trainer** - delivers advanced exercise programming and sports conditioning to a wide variety of clients, including working in collaboration with allied health professionals like medical practitioners, dieticians, physiotherapists and exercise physiologists. They may also be involved in the delivery of health promotion programs and project management.

### Personal Requirements

- good level of physical fitness
- enthusiastic, outgoing personality
- background in fitness activities may be an advantage
- good communication skills.

### Education and Training

To become a fitness instructor you usually have to complete a certificate in fitness. Relevant courses are widely available in Victoria, and are offered by Registered Training Organisations, including TAFE. Entry to certificate courses usually requires Year 10. Entry to diploma courses usually requires Year 12.

Costs, duration and entry requirements may vary between courses. See the online entry for Fitness Instructor at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a fitness instructor through a traineeship in Fitness. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Registration by Fitness Australia or Kinect Australia is generally accepted as the minimum requirement to work as an instructor in the health and fitness industry. Registration requires a current Senior First Aid Certificate and a Cardiopulmonary Resuscitation Certificate.

The registration category depends on your qualification and level of experience. Those who have obtained a Certificate III in Fitness can register as an Exercise Instructor, and are eligible to become a Gym Instructor, Group Exercise Instructor, or Aqua Instructor. Those who have obtained a Certificate IV in Fitness can register as an Exercise Trainer, and are eligible to become a Personal Trainer, Children's Trainer, Older Adults Trainer or Aqua Trainer.

Fitness Australia and Kinect Australia are responsible for all aspects of assessing and registering fitness instructors in Australia. Registration is valid Australia-wide.

### Employment Opportunities

Fitness Instructors can expect to find employment instructing individuals or groups in traditional settings, such as Fitness Centres or Studios. However, more recently a large number of roles in an expanded range of settings have emerged. These include assessment, consulting, health promotion and management roles across a variety of settings, such as community, sport, workplace, clinical, outdoor and mobile services.

A high proportion of fitness instructors are employed on a part-time or casual basis, however an increasing number of full-time positions are becoming available within the industry.



#### For Further Information

- Fitness Australia (National Office) ☎ 1300 211 311  
✉ info@fitness.org.au 🌐 www.fitness.org.au
- Kinect Australia ☎ (03) 8320 0100  
✉ enquiries@kinectaustralia.org.au 🌐 www.vicfit.com.au
- Sportspeople ☎ 1800 634 388 (FREECALL)  
✉ admin@sportspeople.com.au 🌐 www.sportspeople.com.au
- AUSTSWIM VIC ☎ 1300 885 666 (local call cost)  
✉ vic@austswim.com.au 🌐 www.austswim.com.au
- Victorian Institute of Sport ☎ (03) 9425 0000 ✉ vis@vis.org.au  
🌐 www.vis.org.au

#### Related Jobs

Lifeguard (p 248); Recreation Officer (p 348); Sports Coach (p 378); Sportsperson (p 381); Teacher - Physical Education (p 395); Weight Loss Counsellor (p 436).

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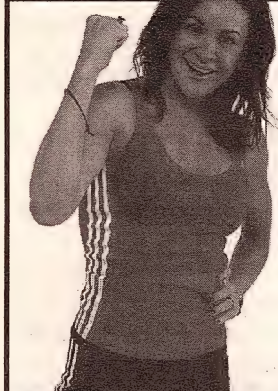
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## Flight Attendant

Also known as Air Steward.

Flight attendants look after the safety and comfort of aircraft passengers and aircraft technical and cabin crew.

Flight attendants may perform the following tasks:

- conduct pre-flight cabin checks and receive prepared meals, beverages and equipment
- check boarding passes and direct passengers to seats
- advise passengers of safety regulations
- distribute reading material and serve meals and drinks
- provide first aid treatment and assist sick passengers
- anticipate and provide for the comfort of passengers needing special attention, including unaccompanied children, parents with infants, people with disabilities, the elderly and non-English-speaking passengers
- take action in the event of decompression, turbulence, mechanical malfunction, or unlawful acts by passengers
- prepare for emergency landings and the evacuation of passengers.

Flight attendants work in shifts which involve irregular hours, working weekends and public holidays, and spending time away from home. They work long hours in a pressurised cabin and must adjust to varying climatic conditions and different time zones. Uniforms are provided.

#### Personal Requirements

- friendly personality with excellent interpersonal and communication skills
- able to work as part of a team
- excellent grooming
- able to work under pressure and within tight time frames
- able to adapt easily to an irregular lifestyle
- good health and fitness
- able to satisfy height requirements (for some airlines)
- able to swim 50 metres (for some airlines)
- at least 18 years of age.

#### Education and Training

You can work as a flight attendant without formal qualifications. Entry to this occupation may be improved if you have qualifications and/or relevant experience in the hospitality or customer service industry.

Entry requirements may vary, but the major airlines generally require your VCE with good results in English and mathematics, combined



with the successful undertaking of written and practical examinations, and behavioural assessments.

On appointment, flight attendants undertake initial in-house training, prior to commencing flight duties.

All flight attendants receive regular training throughout their careers and their performance is monitored to ensure high standards.

You can also become a flight attendant through a traineeship in Aviation (Flight Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

The major airlines favour candidates with a second language and/or awareness of other cultures.

Applicants are required to have a Senior First Aid Certificate and a Responsible Service of Alcohol Certificate.

All persons working in the airline industry must satisfy security clearance requirements.

#### Employment Opportunities

Competition for flight attendant positions is very strong and the supply of applicants far outweighs demand.

Flight attendants are usually based in particular Australian capital cities. Contact the airlines for full details.

#### For Further Information

- Flight Attendants' Association of Australia (Domestic/Regional Division) ☎ (02) 9669 5366 ✉ info@faadomestic.org.au 🌐 www.faaadomestic.org.au
- Flight Attendants' Association of Australia (International Division) ☎ (02) 8337 1111 ✉ info@faaa.net 🌐 www.faaa.net
- Qantas Airways Ltd 🌐 http://careers.qantas.com.au
- Jetstar Airways Pty Ltd ☎ 13 15 38 🌐 www.jetstar.com
- Virgin Blue Airlines Pty Ltd ☎ (07) 3295 3000 🌐 www.virginblue.com.au/AboutUs/Careers/index.htm

#### Related Jobs

Airline Passenger Officer (p 64); Transport Services Officer (p 418); Waiter (p 431).

## Floor Finisher and Coverer

Also known as Floor Sander and Vinyl Layer.

Floor finishers and coverers install and repair floor coverings such as carpet, vinyl, rubber, cork, parquet and timber flooring. They may specialise as hard floor finishers, textile layers or resilient layers.

Floor finishers and coverers may perform the following tasks:

- make sure floors are firm, dry and clean, and repair minor defects before laying coverings
- measure areas to be covered, and estimate and order quantities of floor coverings
- fix underlays of hardboard sheets, rubber or felt
- lay covering materials over the floor, match patterns, cut shapes around fixtures and trim edges
- fix floor coverings and fit edge trims in doorways
- sand, stain and finish a variety of timber floors.

Floor finishers and coverers work in small teams. Conditions can be dusty, and the work involves a lot of bending, stretching, kneeling and carrying. Floor finishers and coverers have a high level of contact with the public, retailers, builders and other tradespeople.

#### Specialisations

**Carpet Layer** - fastens the edges and seams of the carpet, then stretches and fixes it along walls and borders, using gripper strips.

**Hard Floor Finisher** - lays and finishes timber, cork and parquet floors in mosaic and block patterns. They also sand, stain and apply finished coatings to timber floors.

**Resilient Layer** - specialises in laying and finishing vinyl, linoleum and rubber in sheet or tile form. They may lay these materials on bench tops and walls as well as floors.

#### Personal Requirements

- physically fit
- enjoy practical work
- good hand-eye coordination
- normal colour vision.

#### Education and Training

To become a floor finisher and coverer you usually have to complete an apprenticeship in Flooring Technology. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Furnishing Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Many floor finishers and coverers set up their own businesses and work as subcontractors to retailers or floor covering firms. Some work for retail organisations and may combine the duties of retail sales and floor covering.

Trade qualifications are sought after, but are not essential.

Opportunities are dependent on building industry demand, but this is less likely to affect qualified tradespeople.

#### For Further Information

- Australian Timber Flooring Association ☎ 1300 361 693 ✉ admin@atfa.com.au 🌐 www.atfa.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au
- Construction, Forestry, Mining and Energy Union - Victorian FFTS ☎ (03) 9329 1577 ✉ ffts@ffts.asn.au 🌐 www.ffts.com.au

#### Related Jobs

Tiler - Wall and Floor (p 406).

## Florist

Florists prepare floral arrangements such as bouquets, sprays, wreaths and vases of flowers. They also organise the storage, sale and delivery of floral arrangements.

Florists may perform the following tasks:

- design appropriate floral arrangements based on discussions with clients about their requirements, including type of occasion and budget available
- select flowers and greenery, taking into account the expected life of each flower, and trim flowers to a suitable length, strengthening them with wire if necessary



- arrange flowers and greenery in vases or secure them to a wire or plastic base, finishing the arrangement with ribbons or other trimmings
- make sure that flowers remain in good condition by taking into account the temperature, watering requirements and storage needs
- arrange local delivery of flowers and relay interstate and overseas orders
- arrange dried, paper, silk or latex flowers and fruits, and other materials
- decorate churches and halls for weddings and other special occasions
- take part in management and administration, such as working out costs of floral arrangements, maintaining financial records and supervising staff.

Florists may need to attend flower markets early in the morning. They have a high level of contact with the public.

#### Personal Requirements

- enjoy artistic and creative activities
- a good sense of colour, texture and design
- an appreciation of different varieties of flowers
- good communication skills
- sound business skills (if interested in operating a business)
- an appreciation of the importance of discretion and confidentiality.

#### Education and Training

To become a florist you usually have to complete a certificate in floristry. Entry to these courses usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

Courses in floristry are widely available in Victoria. Costs, duration and entry requirements may vary between courses. See the online entry for Florist at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.



You can also become a florist through a traineeship in Floristry. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Florists mainly work for small retail outlets in metropolitan areas and in large country towns. Many are self-employed. Sometimes employment is on a part-time basis.

Florists usually begin their careers as florists' assistants, which mainly involves serving customers. They then move on to wiring flowers or making up sprays, and eventually to working unsupervised in all areas. The demand for flowers tends to be seasonal, with peak periods being Christmas, Valentine's Day and Mother's Day. Advancement opportunities for florists are limited mainly to supervision and self-employment.

#### For Further Information

- Service Skills Australia  [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Australian Florists and Allied Trades Association Inc (VIC)  
 (03) 9729 5520

#### Related Jobs

Horticultural Tradesperson (p 216); Sales Assistant (p 358).

## Food Process Worker

Food process workers operate machines and prepare foods for processing using a wide range of equipment and methods.

Food process workers may perform the following tasks:

- receive, check and store raw materials
- operate conveyor and processing equipment
- take samples and check products for despatch
- check boxes or bins of fruit and vegetables as they are delivered, and organise weighing and storage
- prepare and sort fruit and vegetables for processing, and feed them into machines
- handle live or slaughtered poultry, and prepare for cooking or further processing
- operate machinery for chemical treating, size grading, crushing and extracting juice, and mixing, freezing and drying foods
- operate machinery to blend flour, meal and feed
- sterilise equipment and keep processing areas clean.

If involved in the storage and conservation of grain, food process workers take samples of grain for analysis, keep records of silo stocks and sew bags using industrial sewing machines.

Those involved in grain-mill work do a lot of lifting, pushing and dragging. Conditions are sometimes dusty.

#### Specialisations

**Dairy Process Worker** - operates a wide range of mechanised equipment, often from a sophisticated control room, to produce dairy products such as cheese, butter, milk powder, yoghurt, fresh milk and cream.

**Fruit and Vegetable Process Worker** - operates equipment to prepare canned and frozen fruit and vegetables, sauces, jams and fruit juices using a wide range of methods.

**Margarine and Edible Oils Process Worker** - operates equipment to blend ingredients for margarine and other edible oil products.

**Pet Food Processing Machine Operator** - operates equipment to manufacture pet food.

**Pharmaceuticals Production Machine Operator** - operates equipment to produce pharmaceutical products such as pain relievers, first aid dressings, cosmetics and toiletries.

**Poultry Processor** - slaughters, dresses, cuts, trims, prepares and packs poultry.

**Soft Drink and Syrup Making Machine Operator** - operates equipment to produce syrups, fruit juices and soft drinks.

**Tea and Coffee Processing Machine Operator** - assists in the processing of tea and of roast, ground and instant coffee.

#### Personal Requirements

- enjoy practical work
- high standard of personal cleanliness
- good at technical activities
- attention to detail
- good hand-eye coordination
- grain mill workers must be physically fit with no skin or chest complaints.

#### Education and Training

You can work as a food process worker without formal qualifications. You will probably get some informal training on the job.

You can also become a food process worker through a traineeship in Food Processing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.



### Additional Information

For certain food processing work, such as poultry processing, you may need a forklift licence.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Food Processing Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Food process workers are employed in confectionery, flour, fruit and vegetable processing firms. They also work in wineries and soft drink plants. Processing work tends to be seasonal, in line with crop harvesting times. This means that companies must regulate production to make sure that a range of products is available all year round. In some cases, they operate on a reduced level for much of the year and take on temporary staff during peak periods.

### For Further Information

- AgriFood Careers ☎ [www.agrifoodcareers.com.au](http://www.agrifoodcareers.com.au)
- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
☎ <http://agrifoodskills.net.au>
- Poultry Cooperative Research Centre ☎ (02) 6773 3051  
✉ [info@poultrycrc.com.au](mailto:info@poultrycrc.com.au) ☎ [www.poultryhub.org](http://www.poultryhub.org)
- The People in Dairy ☎ (03) 9620 7283  
☎ [www.thepeopleindairy.org.au](http://www.thepeopleindairy.org.au)

### Related Jobs

Brewery Worker (p 93); Cheesemaker (p 108); Confectioner (p 126); Food Processing Technician (p 189); Meat Processing Worker (p 262).

## Food Processing Technician

Food processing technicians check production processes and product quality, and undertake maintenance and basic repair of equipment. They also assist food technologists in developing food products and establishing standards for production and packaging.

Food processing technicians may perform the following tasks:

- monitor food production processes and carry out routine testing of food ingredients, packaging and food products to ensure that safety, quality, health and legal standards are met
- perform physical, chemical and microbiological tests, and report on content, nutritional value, flavour and appearance
- collect information from surveys and observations
- develop, operate, maintain and repair equipment for use in food production, research and testing
- inspect, analyse and recommend ways of improving quality and efficiency of production
- check handling, processing and storage of raw materials
- check cleanliness and sanitation of equipment
- assist in servicing and sales.

### Personal Requirements

- able to apply mathematics and science in problem solving
- enjoy scientific activities
- good observation skills
- show initiative
- able to work as part of a team
- good organisation skills
- a high level of accuracy.

### Education and Training

To become a food processing technician you usually have to complete a certificate in food processing or diploma in food science and technology. Entry to the certificate courses below usually requires Year 10. Entry to the diploma courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Certificate Courses

*Goulburn Ovens Institute of TAFE - Werribee Campus:*

Certificate IV in Food Processing

*South West Institute of TAFE - Warrnambool Campus:*

Certificate IV in Food Processing

#### Diploma Courses

*Goulburn Ovens Institute of TAFE - Werribee Campus:*

Diploma of Food Science and Technology

*RMIT University (TAFE Division) - City Campus:*

Diploma of Food Science and Technology

*William Angliss Institute of TAFE - Melbourne Campus:*

Diploma of Food Science and Technology

### Employment Opportunities

Initially, food processing technicians may perform routine quality assurance tasks such as laboratory testing. With experience and sometimes further training, it is possible to advance to supervisory or senior technical positions such as quality control leader, quality compliance coordinator, quality assurance inspector, laboratory technician or quality improvement leader.

Job prospects are dependent on food production and access to export markets.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
☎ <http://agrifoodskills.net.au>
- The Australian Institute of Food Science and Technology Inc (National Office) ☎ (02) 8399 3996 or 1800 816 148 (FREECALL) ✉ [aifst@aifst.com.au](mailto:aifst@aifst.com.au) ☎ [www.aifst.asn.au](http://www.aifst.asn.au)

### Related Jobs

Food Process Worker (p 188); Food Technologist (p 189); Laboratory Worker (p 240).

## Food Technologist

Food technologists develop and improve existing food products and set standards for producing, packaging and marketing food. They also undertake basic and applied research into aspects of food preservation, food quality and deterioration.

Food technologists may perform the following tasks:

- make sure that hygienic conditions are maintained during processing, storage and packaging of food
- test raw ingredients and processed food for nutritional value and microbiological quality
- check foods for colour, taste and flavour
- develop new products and devise the techniques needed to produce these foods and maintain quality during storage
- supervise cleaning and maintenance of machinery used in food processing
- compare products with those of other brands and participate in surveys which provide information to management about new products and market trends



- supervise the transportation of foodstuffs such as fruit, vegetables and milk, and inspect for spoilage and quality deterioration
- develop quality control procedures for the manufacture of products in plants or factories
- analyse results and experimental data
- supervise and coordinate the work of technicians.

Food technologists may be required to wear protective clothing.

Food technologists may specialise in fields such as meat, dairy, seafood, cereal products, snack foods, beverages and minimally processed fresh produce. They may also work in areas such as marketing and management, production supervision, quality control, research and development, or food standards and regulation.

#### Personal Requirements

- enjoy scientific activities
- initiative
- aptitude for science and technology
- able to work as part of a team
- observation skills
- a high level of accuracy
- good physical health.

#### Education and Training

To become a food technologist you usually have to study science or applied science at university with a major in food science and technology or a related field. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Degree courses in these areas are widely available at most universities in Victoria. Check institution handbooks for full details.

#### Employment Opportunities

Food technologists work in food, wine and beverage manufacturing firms in research, marketing and distribution, quality assurance, development and production. Additional opportunities exist with equipment manufacturers, with flavouring and food ingredient businesses, and with the retail sector.

Some food technologists are employed by government organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and others work in state and territory government departments that are concerned with the quality of processed foods. Significant numbers find employment in large country centres near where foods are grown and processed.

Food technologists also work as teachers or lecturers in TAFE and tertiary institutions, or as self-employed consultants to the food industry. Graduates in biochemistry, chemistry and microbiology may also find employment as food technologists.

Seafood technologists are employed in many areas of the fishing industry, including quality control, factory management, the development of new products, and training of fishers in the correct handling of seafood.

Dairy technologists work for organisations that sell dairy produce, marketing boards and dairy machinery manufacturers. Other dairy industry opportunities include advisory and control work in processing and distribution, grading and analysis, teaching and research.

#### For Further Information

- The Australian Institute of Food Science and Technology Inc (National Office) ☎ (02) 8399 3996 or 1800 816 148 (FREECALL) ✉ aifst@aifst.com.au 🌐 www.aifst.asn.au

#### Related Jobs

Agricultural Engineer (p 57); Agricultural Technical Officer (p 58); Biotechnologist (p 89); Consumer Scientist (p 128); Dietitian (p 147); Environmental Health Officer (p 168); Food Processing Technician (p 189); Home Economist (p 213); Laboratory Worker (p 240); Microbiologist (p 274); Nutritionist (p 298); Primary Products Inspector (p 330); Viticulturalist (p 430); Winemaker (p 437).

## Footwear Worker

Also known as Shoemaker.

Footwear workers make shoes, boots and sandals using hand and machine tools.

The footwear industry has become more mechanised and raw material passes through many stages before the finished article is produced. Different sets of specialised skills are required for each stage of production.

#### Specialisations

**Clicker** - cuts pieces of leather or other material from patterns to form the upper parts of a shoe using a clicking press. Materials may be cut by hand in small factories.

**Footwear Finisher** - trims, inks, polishes, sands and applies the maker's name.

**Footwear Machinist** - uses various machines to stitch the upper parts of shoes and may decorate with stitching or punched holes.

**Footwear Maker** - assembles all types of footwear either by hand or machine. Uppers are attached to soles and heels by nailing, tacking, stitching, gluing or injection moulding.

**Pattern Maker** - designs and cuts a heavy paper pattern for a sample model shoe by hand or computer. From the master pattern multiple copies are made to produce a range of shoes in different sizes and colours.

**Stuf cutter** - cuts the bottom sections of the shoes which includes the soles, heels and insoles using a clicking press.

**Tableworker** - prepares the uppers for the machinist to sew together and cleans, polishes and packs the completed item of footwear.

With experience and sometimes further training, it is possible to progress to technical or supervisory levels.

#### Personal Requirements

- enjoy practical and manual activities
- good with hands
- able to perform precise and detailed work
- good eyesight (may be corrected)
- normal colour vision.

#### Education and Training

You can work as a footwear worker without formal qualifications. You will probably get some informal training on the job.

You can also become a footwear worker through a traineeship in Footwear Production (Intermediate/Complex or Multiple Processes). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Textiles, Clothing and Footwear Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.



### Employment Opportunities

Footwear workers are employed by shoe manufacturers. Most footwear establishments are small, employing fewer than 50 people.

With experience and further training you may be able to move into areas of footwear design, or into other areas of the footwear industry. Opportunities for mass production footwear workers are affected by changes in footwear fashion and overseas competition.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Footwear Manufacturers Association of Australia (National Office)  
☎ (03) 9894 4470 ✉ [etaylor@surimex.com.au](mailto:etaylor@surimex.com.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

### Related Jobs

Shoe Repairer (p 371); Textile Mechanic (p 402).

## Foreign Affairs and Trade Officer

Also known as Diplomat.

Foreign affairs and trade officers work on the policy and operational aspects of Australia's foreign policy and trade interests.

Officers work for the Federal Department of Foreign Affairs and Trade and are located in Canberra, in other capital cities around Australia, or overseas in Australian diplomatic or consular missions.

Foreign affairs and trade officers may perform the following tasks:

- provide policy advice on foreign affairs and trade issues to government ministers
- keep the government informed about international strategic, political, economic and trade issues
- advise on treaties and on matters of international law
- promote the Department's cultural relations program, and environmental and human rights objectives
- provide consular advice to members of the public
- provide advice about the management and administration of the Department.

When based in embassies or consulates overseas, officers may perform the following tasks:

- prepare political and economic analyses
- undertake representations and negotiations related to Australia's foreign policy and trade interests
- undertake duties associated with the administration of an overseas mission
- assist in preparations for ministerial and official visits
- participate in cultural and community information activities, including press relations
- assist in implementing aid programs
- handle enquiries and representations on behalf of Australian authorities
- represent Australia at international meetings
- undertake consular work, including assisting Australians in need
- issue passports and manage related requests.

### Personal Requirements

- excellent written and oral communication skills
- interest in Australian and international political and economic environments
- strong conceptual and analytical ability
- adaptability, flexibility, initiative and resourcefulness
- good organisational skills
- able to work as a part of a team.

### Education and Training

To become a foreign affairs and trade officer you usually have to complete a degree at university, preferably with honours.

The Department of Foreign Affairs and Trade recruits graduates from a range of disciplines, including economics, commerce, law, Asian studies, arts (including politics, international relations, history and strategic studies), public administration, accountancy, human resource management and languages.

To get into these courses you usually need to gain your VCE. Relevant degree programs are widely available in Victoria. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Recruitment is undertaken through either the Department's Graduate Trainee recruitment program, or the general recruitment program. Graduate Trainees are provided with a comprehensive academic and professional skills program including formal courses and on-the-job training. Recruits with accounting degrees are provided with training to enable them to obtain their Certified Practising Accountant (CPA) qualification.

### Employment Opportunities

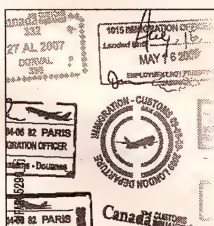
Graduate positions with the Department of Foreign Affairs and Trade are advertised in the national press in March each year. General vacancies are advertised throughout the year on the Australian Public Service Commission website ([www.apsjobs.gov.au](http://www.apsjobs.gov.au)), on the Department's website ([www.dfat.gov.au/jobs](http://www.dfat.gov.au/jobs)), and usually in the press. Entry to the field is extremely competitive, as positions are limited and there are many applicants.

The Department is keen to encourage applications from graduates with Aboriginal and Torres Strait Islander and non-English-speaking backgrounds. Knowledge of a foreign language is not necessary but is an advantage.

Successful applicants have a strong record of academic achievement, and many have an honours, combined or double degree. Graduate Trainees become eligible for overseas posting after completing their initial training program in the Department of Foreign Affairs and Trade in Canberra.

### For Further Information

- Graduate Recruitment Unit, Department of Foreign Affairs and Trade ☎ (02) 6261 2736 ✉ [gradrec@dfat.gov.au](mailto:gradrec@dfat.gov.au)  
☎ [www.dfat.gov.au/recruit/graduates](http://www.dfat.gov.au/recruit/graduates)



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## Related Jobs

Accountant (p 47); Lawyer (p 244); Marketing Officer (p 257); Parliamentarian (p 310); Public Servant - Australian Public Service (p 340); Research Officer (p 353); Trade Union Official (p 411).

## Forensic Scientist

Forensic scientists apply scientific procedures and techniques to the examination of potential evidence that may assist in legal investigations.

Forensic scientists may perform the following tasks:

- identify illicit drugs
- analyse drugs and poisons in human tissue and body fluids, including blood alcohol results
- examine and compare materials such as fibres, paints, cosmetics, oils, fuels, plastics, glass, metals, soils and gunshot residues
- examine human and animal biological material to be compared with victims and suspects using DNA profiling
- conduct botanical identification of plant materials at trace levels and whole-plant identification (e.g. cannabis)
- conduct document examinations, both physical (e.g. handwriting, typewriting) and chemical (e.g. analysis of inks and papers)
- analyse computers and obtain data from electronic devices
- examine crime scenes
- identify firearms and ammunition (forensic ballistics)
- detect, enhance, recover and identify latent fingerprints, footprints, tool marks, shoe marks, tyre marks and tracks
- examine fire and explosion scenes to establish the origin and cause
- improve the clarity of, and analyse, audio and video recordings
- produce reports, appear in court and present scientific and/or opinion testimony accurately and in a manner which is readily understood by the court
- make presentations to a wide variety of audiences on the work of forensic scientists
- keep contact with, and provide advice to, police investigators, legal practitioners, scientists and pathologists across a broad range of disciplines.

A wide range of expertise is required for forensic investigations. A forensic scientist may specialise in chemistry, biochemistry, molecular biology, botany, pharmacology, toxicology, crime scene examination, firearms examination, fingerprint and document examination.

### Personal Requirements

- good communication skills
- able to remain unbiased in the examination of potential court evidence
- meticulous and capable of clear, logical and lateral thinking
- able to work as part of a team
- initiative and motivation
- perseverance
- good observation skills.

### Education and Training

To become a forensic scientist you usually have to study science at university with a major in forensic science or a relevant subject. To get into the courses below you usually need to gain your VCE.

Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. You may also consider degrees in other areas of specialisation which may provide entry into various areas of forensic science. Relevant areas include biology, botany, chemistry, physics, dentistry or medicine. These

degrees are offered by various universities throughout Victoria. They have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

#### Deakin University - Geelong Campus:

Bachelor of Forensic Science, 3 years full time or equivalent

#### Swinburne University of Technology - Hawthorn Campus:

Bachelor of Science (Biochemistry/Biotechnology/Chemistry), majoring in forensic science, 3 years full time or equivalent

#### Victoria University - Footscray Park Campus:

Bachelor of Science, majoring in forensic chemistry, 3 years full time or equivalent

### Additional Information

An honours degree or higher qualification is highly desirable for some positions. Postgraduate courses in forensic science are available at Bond University (QLD), Charles Sturt University (NSW), Flinders University (SA), Griffith University (QLD), La Trobe University (VIC), Monash University (VIC), University of Canberra (ACT) and the University of Western Australia.

### Employment Opportunities

The main employers of forensic scientists are state and federal government health departments, and state, territory and federal police forces. Most forensic scientists have had extensive experience specialising in a particular scientific field such as microbiology, chemistry or physics before moving into the forensic area.

The Australian Federal Police, through its Forensic and Data Centres Division in Canberra, employs forensic scientists in the disciplines of crime scene examination, fingerprint identification, firearms and ammunition identification, document examination, forensic biology and forensic chemistry.

Forensic science is a highly competitive industry.

### For Further Information

- Manager Forensic and Data Services, Business Support, Australian Federal Police ☎ (02) 6203 6044  
🌐 [www.afp.gov.au](http://www.afp.gov.au)
- ANZPAA National Institute of Forensic Science Australia ☎ (03) 9628 7211 ✉ [secretariat@anzpaa.org.au](mailto:secretariat@anzpaa.org.au)  
🌐 [www.anzpaa.org.au](http://www.anzpaa.org.au)
- Victorian Institute of Forensic Medicine ☎ (03) 9684 4444  
✉ [assist@vifm.org](mailto:assist@vifm.org) 🌐 [www.vifm.org](http://www.vifm.org)
- Victoria Police Recruitment Services Branch, Victoria Police Centre ☎ 13 20 01  
✉ [hrdd.recruittingservices@police.vic.gov.au](mailto:hrdd.recruittingservices@police.vic.gov.au)  
🌐 [www.police.vic.gov.au](http://www.police.vic.gov.au)

### Related Jobs

Biochemist (p 88); Biotechnologist (p 89); Botanist (p 91); Chemist (p 111); Dispensary Technician (p 148); Medical Laboratory Technician (p 268); Medical Practitioner (p 268); Medical Scientist (p 270); Microbiologist (p 274); Pharmacist (p 315); Pharmacologist (p 316); Toxicologist (p 410).

## Forest Technical Officer 🌳

Also known as Forest Technician and Forest Assistant.

Forest technical officers are responsible for many of the forestry operations involved in the planting, management and harvesting of trees.



Forest technical officers may perform the following tasks:

- supervise forest establishment and maintenance work such as fencing, planting, nursery work, weed control and pruning; and protection work involving controlled burning, fire spotting and firefighting
- carry out or supervise seed harvesting, propagation or cultivation of young trees
- select trees for felling and supervise logging operations to ensure compliance with forest policies and programs
- supervise the use of herbicides and insecticides to implement pest, weed and disease control
- set up or assist with field trials associated with research projects and forest growth studies
- enforce fire prevention regulations
- supervise the construction and maintenance of forest access roads
- issue licences and permits for recreation and for the collection of some forest products
- carry out investigations and aid in the prosecution of offenders
- write reports and undertake other clerical work
- supervise fieldworkers.

Forest technical officers work in country areas, sometimes in isolated bush locations. They work irregular hours during emergencies such as bushfires. Those in administrative or research positions are usually based in larger centres.

Forest technical officers may be involved in forest operations, forest assessment and planning or forest research. Those working in private industry may supervise logging activities.

#### Specialisation

**Forester - Technical** - usually performs a supervising or managerial role in forestry projects. May work with Foresters and Forest Technical Officers.

#### Personal Requirements

- enjoy outdoor work
- interested in forest and environmental management
- practical
- physically fit
- good communication skills
- leadership potential and ability to supervise others
- able to work as part of a small team
- drivers licence.

#### Education and Training

You can work as a forest technical officer without formal qualifications. However, entry to this occupation may be improved if you have a qualification in a forestry related area. Such related studies include biodiversity and conservation, environmental biology, resource management, plant sciences, vegetation and wildlife conservation and management, parks and heritage, parks and recreation, and ecotourism. Relevant certificate or diploma courses are widely available and are offered by Registered Training Organisations, including TAFE. Degrees in these areas are available at most universities in Victoria. Check institution handbooks for full details.

You can also become a forest technical officer through a traineeship in Forest Growing and Management. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

The Department of Primary Industries employs forest technical officers at centres throughout Victoria. Forest officers are recruited by the department at both technical assistant and technical officer levels.

With additional training and study, there are opportunities for forest technical officers to progress to senior positions. When they arise, vacancies tend to attract a large number of applicants.

#### For Further Information

- ForestWorks ☎ (03) 9321 3500  
✉ forestworks@forestworks.com.au  
🌐 www.forestworks.com.au
- Department of Primary Industries ☎ 13 61 86  
✉ customer.service@dpi.vic.gov.au  
🌐 http://new.dpi.vic.gov.au

#### Related Jobs

Agricultural Technical Officer (p 58); Fisheries Officer (p 184); Forest Worker (p 193); Forester (p 194); Park Ranger (p 309); Science Field Officer (p 362).

## Forest Worker 🌿

Also known as Forestry Worker.

Forest workers assist with growing, maintaining and harvesting timber plantations.

Forest workers may perform the following tasks:

- prepare sites for tree planting
- raise and package cuttings and seedlings at a forest nursery
- undertake planting and other re-growth activities of native or plantation forests
- control weeds and pests in both new and established forests using fertilisers, insecticides and herbicides
- prune and thin trees in plantations by hand and using mechanical equipment
- collect seeds
- construct and maintain facilities such as access roads, buildings and visitors' amenities
- prevent and put out fires, including maintenance of fire breaks, fire spotting, controlled burning and fire fighting
- maintain forestry equipment and vehicles
- mark trees for harvesting
- observe correct environmental practices to minimise impact on roads, water courses and wildlife corridors.

Forest workers are usually employed in small work teams. They may work in softwood and hardwood plantations and forests, in rural areas or in isolated bush locations. Much of the work is outdoors and therefore subject to varying weather conditions. Some aspects of the work can be physically demanding.

#### Specialisation

**Forest Nursery Technician** - carries out and manages seed harvesting, propagation or cultivation of young trees at a forest nursery.

#### Personal Requirements

- enjoy practical and outdoor work
- alert and safety conscious
- physically fit
- good hand-eye coordination
- enjoy forest protection and regeneration
- sound literacy and numeracy skills.



## Education and Training

You can work as a forest worker without formal qualifications. You will probably get some informal training on the job.

You can also become a forest worker through a traineeship in Forest and Forest Products or Forest Growing and Management. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Forest and Forest Products Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

Forest workers are employed by government departments, forest owners or private contractors who are hired by wood processing firms to carry out logging operations. Work may be on a continuous basis or on short-term contract or piecework for specific tasks such as tree planting or pruning.

Declining logging of old growth forests, increasing plantation forest activity and the introduction of more sophisticated equipment means that new entrants to the industry require different skills and abilities from past workers.

## For Further Information

- ForestWorks ☎ (03) 9321 3500  
✉ [forestworks@forestworks.com.au](mailto:forestworks@forestworks.com.au)  
🌐 [www.forestworks.com.au](http://www.forestworks.com.au)
- Department of Primary Industries ☎ 13 61 86  
✉ [customer.service@dpi.vic.gov.au](mailto:customer.service@dpi.vic.gov.au)  
🌐 <http://new.dpi.vic.gov.au>

## Related Jobs

Farm Hand (p 171); Forest Technical Officer (p 192); Horticultural Assistant (p 216); Horticultural Tradesperson (p 216); Pest and Weed Controller (p 313); Timber and Wood Production Worker (p 406).

## Forester ✨

Foresters study, establish, manage and harvest forests to make sure there is a continuing supply of timber and associated forest products. They also maintain the recreational quality of forests to meet community needs.

Foresters may perform the following tasks:

- manage forest resources by protecting and regenerating forests and promoting effective growth
- establish plantations of native and introduced timber species
- plan and implement a system of fire prevention, detection and suppression
- observe the effects of environmental factors on the growth and health of plants
- measure and record tree volume and growth and changes in the forest's timber and other resources
- estimate the sustainable supply of timber and associated forest products
- plan and implement the growing and harvesting of native and plantation forests
- protect wildlife habitats and forest streams
- develop and control the use of recreational facilities

- undertake landscaped management which may involve manual and satellite mapping, aerial photo interpretation and field measurements
- advise governments, industry and landholders on forestry, and plan and conduct educational programs on the care and value of trees and forests
- conduct research on various aspects of forestry
- supervise and train technical, clerical and field staff and coordinate their work.

Foresters work both indoors and outdoors, often in isolated bush areas.

They may be involved with forest ecology, hydrology (water), entomology (insects), pathology (diseases) and geographic information systems. Other areas of specialisation include various commercial forestry aspects and forestry extension and consultation services.

## Personal Requirements

- aptitude for science
- initiative
- interested in environmental issues
- good communication skills
- enjoy outdoor activities.

## Education and Training

To become a forester you usually have to study science at university with a major in forestry. To get into the course below you usually need to gain your VCE with English. The various universities have different prerequisites and some have flexible entry requirements. Contact the university for more information as requirements may change.

## Degree Courses

*University of Melbourne - Parkville Campus:*

Bachelor of Environments, 3 years full time, followed by the Master of Forest Ecosystem Science, 2 years full time

## Additional Information

Most degrees in forestry are recognised by the Institute of Foresters of Australia (IFA). The Institute also offers alternate associate membership. Contact IFA for further information.

Universities recommend that students seek employment in the forestry industry during summer vacations. Field or practical experience is very important when seeking postgraduate employment.

## Employment Opportunities

Foresters are employed by state and territory government agencies concerned with public land, state forests, soil conservation, national parks and wildlife. They are also employed by local government agencies and regional authorities in areas such as fire protection and urban forestry. There are opportunities with pulp and paper companies and other large firms in forestry-related industries. Foresters may work as field management officers, scientific officers, resource planners, fire prevention officers, conservation officers, timber and harvesting managers, reforestation (replanting) officers and production managers.

Forestry graduates usually enter the occupation as project foresters and gain experience by rotating through positions during the early years of employment. Employment in research and advisory positions, such as with the Commonwealth Scientific and Industrial Research Organisation (CSIRO), requires higher degrees in plant and/or soil sciences.

Employment opportunities depend on government strategies for conservation and development of forest resources, the number and size of native forests and plantations, and demand for timber products.



### For Further Information

- ForestWorks ☎ (03) 9321 3500  
✉ forestworks@forestworks.com.au  
🌐 www.forestworks.com.au
- Institute of Foresters of Australia ☎ (02) 6281 3992  
✉ ifa@forestry.org.au 🌐 www.forestry.org.au
- Department of Primary Industries ☎ 13 61 86  
✉ customer.service@dpi.vic.gov.au  
🌐 http://new.dpi.vic.gov.au

### Related Jobs

Agricultural Scientist (p 57); Agricultural Technical Officer (p 58); Biotechnologist (p 89); Fisheries Officer (p 184); Forest Technical Officer (p 192); Geographic Information Systems Officer (p 201); Natural Resource Manager (p 287); Park Ranger (p 309); Pest and Weed Controller (p 313); Primary Products Inspector (p 330); Zoologist (p 443).

## Forklift Operator

Also known as Forklift Driver.

Forklift operators drive forklifts to shift and stack bales, cartons, containers, crates and pallets of goods in areas such as timber yards and warehouses. They also move shipping containers on the waterfront.

Forklift operators may perform the following tasks:

- lift, stack and unstack articles and materials using diesel, electric, gas or petrol powered trucks equipped with fork attachments
- move raw materials and finished goods to processing or despatch areas of factories
- make sure goods are stored in the correct area of a warehouse so they may be located easily when making up orders
- load transport vehicles, making sure loads are evenly and securely placed
- service and make minor adjustments to the forklift
- keep a record of daily operations.

Forklift operators work indoors and outdoors. They may be required to work shifts and may have some contact with the public.

### Personal Requirements

- enjoy practical and manual activities
- able to judge distances
- safety conscious
- good eyesight (may be corrected) and hearing
- meet appropriate age limits.

### Education and Training

You can work as a forklift operator without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job, although there are a number of courses available that may assist you in gaining employment.

You can also become a forklift operator through an apprenticeship in Transport and Logistics (Warehousing and Storage). Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Industry standards require forklift operators to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To gain a licence, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, keeping an approved logbook to record competencies achieved during training. To

achieve competency the trainee must also be able to use the English language at a level that enables safe performance of high risk work. Assessment by an independent assessor will then be required. To obtain a licence, you will need to be at least 18 years of age.

Costs, duration and entry requirements may vary between courses. See the online entry for Forklift Operator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Short Courses

TAFE Victoria - various locations:

Short Course in Operate a Forklift

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics or Civil Construction Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Forklift operators work in warehouses in the wholesale, manufacturing, freight forwarding and primary industries. Federal and state government departments also employ forklift operators. Some forklift operators also perform other tasks such as stores or clerical work. Promotion to positions such as supervisor may be possible in larger firms.

The safety training requirements for forklift operators have increased in an effort to improve productivity and reduce the costs of downtime due to injury.

### For Further Information

- Transport and Logistics Industry Skills Council  
🌐 www.tlisc.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

### Related Jobs

Airline Baggage and Freight Handler (p 64); Crane Operator (p 136); Dogger (p 151); Furniture Removalist (p 197); Mobile Plant Operator (p 279); Storeperson (p 386); Truck Driver (p 419); Waterside Worker (p 434).

## Fruit and Vegetable Picker

Fruit and vegetable pickers harvest fruit, vegetables, nuts and berries at farms, market gardens and orchards, and prepare produce for distribution.

Fruit and vegetable pickers may perform the following tasks:

- select fruit and vegetables for picking according to size and ripeness, and discard rotting and over-ripened produce
- operate farm machinery to harvest nuts, fruit and vegetables
- load picked fruit and vegetables into containers, taking care to avoid damage
- drive tractors or other vehicles to deliver fruit and vegetables to the packing shed
- sort and pack produce
- drive forklifts to load boxes of produce onto trucks.

Fruit and vegetable pickers may work from ladders or mechanical hoists when they are picking tree crops, or they may have to stoop to pick field and vine crops. Gloves may be worn to protect hands from thorny branches.

Weather conditions can be hot, dusty, humid or rainy, but work usually continues in these conditions to make sure that the harvest is



completed on time. Harvesting work is seasonal and pickers may travel long distances after picking one crop to get to their next job. Some employers provide accommodation, but pickers usually need to find their own.

#### Personal Requirements

- enjoy practical work
- free from skin conditions and allergies to agricultural chemicals
- able to work at heights
- able to work quickly and consistently for long periods of time
- willing to work outdoors in all weather conditions
- able to travel from property to property to pick fruit and vegetables
- able to undertake manual and sometimes heavy work.

#### Education and Training

You can work as a fruit and vegetable picker without formal qualifications. You will probably get some informal training on the job.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Agriculture, Horticulture and Conservation and Land Management Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Seasonal employment is available throughout the state, with demand usually met from local labour and regular workers who have been coming to the region over a number of years. Therefore, it is wise for outside labourers to have a firm offer of employment before travelling to the harvest areas.

The demand for pickers in some regions has decreased over the years with the introduction of mechanised fruit-picking equipment.

Pickers are usually paid according to how much fruit they pick.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Jobsearch Harvest Trail 🌐 <http://jobsearch.gov.au/harvesttrail>
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)
- Fruit Growers Victoria ☎ (03) 5825 3700 ✉ [admin@fgv.com.au](mailto:admin@fgv.com.au)  
🌐 [www.fgv.com.au](http://www.fgv.com.au)

#### Related Jobs

Farm Hand (p 171); Farmer/Farm Manager (p 172); Horticultural Tradesperson (p 216); Primary Products Inspector (p 330); Winery Worker (p 438).

## Funeral Attendant

Funeral attendants assist in the handling of people who have died, the preparation for funerals, the transportation and placement of coffins, the conducting of funeral ceremonies and the maintenance of funeral premises.

Funeral attendants may perform the following tasks:

- collect the body from the hospital, morgue or place of death
- assist in preparing the body and placing it in the coffin
- escort mourners to funeral chapels
- arrange burial equipment such as mats and lowering straps
- distribute and collect attendance and tribute cards
- drive passenger vehicles, mortuary vans and hearses
- clean parlours, chapels and hearses
- arrange floral tributes
- assist as coffin or casket bearers.

The work of funeral attendants may be demanding and sometimes stressful. They are often required to work irregular hours, including evenings and weekends, and are often on call to meet their clients' needs. In small companies, one person may perform a variety of tasks, and therefore requires a broad range of skills and a flexible attitude.

#### Specialisations

**Embalmer** - prepares and preserves deceased persons from the time of death until they can be buried or cremated. An embalmer is usually a qualified member of a funeral firm.

**Funeral Director** - coordinates and supervises funeral workers, including embalmers and drivers. They also provide general assistance and support for the family through all aspects of the funeral procedure, including organising documentation, caskets and decorations, as well as facilitating the ceremony itself.

#### Personal Requirements

- enjoy helping people
- well groomed
- tactful and sympathetic
- good communication skills
- physically fit
- good driving record
- good organisational skills.

#### Education and Training

You can work as a funeral attendant without formal qualifications. You will probably get some informal training on the job.

You can also become a funeral attendant through a traineeship in Funeral Operations. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Funeral Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Most employers require you to have a drivers licence.

#### Employment Opportunities

Opportunities to enter this field are limited due to low turnover of staff. Funeral attendants usually only progress to a funeral director or manager position after working in the business for a long time. It may be possible to set up a new business, but it is difficult and costly. Most firms in this industry are well established.

#### For Further Information

- Australian Funeral Directors Association (National Office)  
☎ (03) 9859 9966 or 1300 888 188 (Toll Free)  
✉ [info@afda.org.au](mailto:info@afda.org.au) 🌐 [www.afda.org.au/careers](http://www.afda.org.au/careers)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)

#### Related Jobs

Civil Celebrant (p 116); Dietary Aide (p 146); Events Coordinator (p 170).

## Furniture Polisher

Also known as French Polisher and Furniture Finisher.

Furniture polishers polish timber furniture and musical instruments by hand or machine to give them a protective and attractive finish.



Furniture polishers may perform the following tasks:

- remove accessories such as knobs or hinges
- remove old finishes by stripping, scraping, sanding or applying solvents or paint strippers
- mix and apply stains and paint to timber and other surfaces
- spray on lacquers, varnish and two-pack finishes
- polish with French polish, wax or lacquer
- make minor repairs to damaged furniture
- maintain equipment.

With experience and sometimes further training, furniture polishers may be promoted to the position of workshop supervisor or manager, or may set up their own business.

Furniture polishers work in workshops, which may be noisy due to the operation of industrial machines and tools. They usually stand for most of the day and wear protective masks as some of the lacquers give off unpleasant fumes.

#### Specialisation

**Spray Finisher** - uses high-pressure spray equipment and guns to apply a finish.

#### Personal Requirements

- enjoy practical and manual work
- normal colour vision
- good hand-eye coordination
- patient and able to pay attention to detail
- free from allergies to the solvents, varnishes and other materials used.

#### Education and Training

To become a furniture polisher you usually have to complete an apprenticeship in Furniture Finishing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Furniture polishers mostly work for furniture makers, large retailers and firms that specialise in French-polishing and furniture restoration. As the workforce is small and only a few apprenticeships are offered each year, it is difficult to secure an opening in this trade.

#### For Further Information

- Furnishing Industry Association of Australia Ltd ☎ (02) 4340 2000  
✉ admin@fiaa.com.au 🌐 www.fiaa.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au

#### Related Jobs

Cabinetmaker (p 99); Upholsterer (p 422); Wood Machinist (p 439).

## Furniture Removalist

Furniture removalists move domestic and commercial furniture between different locations within the state or territory and nationwide.

Furniture removalists may perform the following tasks:

- inspect the house or office at the pick-up address to see what has to be moved, then pack and label items if required
- load goods onto the truck either by hand, or by using a forklift, trolleys, lifting straps or lifting hooks
- use pads and pieces of hessian to make sure items such as fridges, couches and beds are not damaged

- make sure the load is correctly placed and secured to avoid any damage to the truck or to the goods
- drive defensively and handle all types of road conditions
- unload goods and move them into the drop-off address, unpacking if required
- check larger items against inventory, noting any wear and tear or damage
- conduct a general maintenance check of the truck and clean the vehicle
- provide customer service.

Furniture removalists may work long hours and be away from home for extended periods, especially for country and interstate removals.

#### Specialisation

**Furniture Removalist Offsider** - drives in the truck alongside a furniture removalist and assists with furniture removal duties, at a junior level.

#### Personal Requirements

- enjoy practical work
- mechanical aptitude
- safe driving record
- physically fit
- good communication skills.

#### Education and Training

You can work as a furniture removalist without formal qualifications. You will probably get informal training on the job.

You can also become a furniture removalist through a traineeship in Transport and Logistics (Road Transport). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

You must hold appropriate licences to drive vehicles and operate machinery.

You may become an accredited furniture removalist with the Australian Furniture Removal Association (AFRA). For more information, please contact the organisation.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most furniture removalists work as contractors for large removal companies. Some are owner-operators working for themselves. A small number are company employees, but this is becoming quite rare.

Most furniture removalists work in the metropolitan area.

#### For Further Information

- Australian Furniture Removal Association (National Office)  
☎ 1800 671 806 (FREECALL) ✉ admin@afra.com.au  
🌐 www.afra.com.au
- Australian Trucking Association 🌐 www.atatruck.net.au
- Transport and Logistics Industry Skills Council  
🌐 www.tlisc.com.au
- Transport Workers' Union of Australia (VIC/TAS) ☎ 1300 727 614 (Toll Free) ✉ info@twu.asn.au 🌐 www.twu.asn.au

#### Related Jobs

Bus Driver (p 97); Car Driver (p 100); Crane Operator (p 136); Delivery Driver (p 142); Forklift Operator (p 195); Truck Driver (p 419); Truck Offsider (p 421); Waterside Worker (p 434).



# G

## Games Developer

Also known as Games Producer.

Games developers design, create and produce computer or video games. They work in games development teams with artists, programmers, producers and marketing staff.

Games developers usually specialise in a particular game platform (e.g. PlayStation, Xbox or Nintendo) and a particular aspect of game development (e.g. programming artificial intelligence or gameplay).

Game developers may perform the following tasks:

- draw up detailed design documentation including charts and diagrams that outline the various concepts and components involved
- modify and document the program code to correct errors
- test the game and make amendments to enhance its capabilities
- prepare digital graphics, animations, sound, video, photographs and images for editing
- combine structural, mechanical and artistic elements into the game's environment, such as buildings, vehicles and decorative finishes.

Specialisation is common in the industry, although games developers sometimes perform a combination of roles.

### Specialisations

**Animator (Games Development)** - arranges characters and objects designed by technical artists in a sequence of different positions to give the illusion of movement. They synchronise lip movements with words, and actions with music and sound effects. Animators work with programmers to create interactive sequences and work with testers to provide lifelike movements through digital techniques such as motion capture.

**Digital Video Sound Editor (Games Development)** - is involved in the computer-based editing of video sound for games. Working under instruction from directors, editors make editorial decisions in regards to the mood, pace and climax of sound effects. This involves working closely with other professional staff to analyse, evaluate and select sound effects for integration with images and other media.

**Games Programmer** - writes code (usually in C++ programming language) or uses game-development engines to create computer or video games.

**Producer/Director (Games Development)** - manages, plans, oversees and in some cases funds the development of a game. They work closely with the marketing department and the team developing the game, ensuring schedules, budget and productivity targets are met.

**Technical Artist/3D Artist (Games Development)** - creates and manipulates images and models using 2D and 3D computer graphics software (usually in Adobe Photoshop, Maya or 3DS Max). They work closely with animators and concept/layout artists to design (model) characters, vehicles, buildings and other objects present in the gaming environment.

**Tester (Games Development)** - is responsible for monitoring and testing technical standards in gameplay, graphics, sound and functionality during games development. They assist programmers in finding 'bugs' (errors) and work with the team on performance related issues.

### Personal Requirements

- aptitude for computing
- creative and artistic flair
- commitment to understanding and using new technology
- good communication skills
- aptitude for drawing
- understanding of colour and form
- able to work as part of a team.

### Education and Training

To become a games developer you usually have to complete a certificate or diploma in information technology, specialising in multimedia studies. However, entry to this occupation may be improved if you have a degree in games design/programming.

Entry to the certificate and diploma courses usually requires at least Year 10. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Applicants may also be required to present a folio of work.

Courses in this area are widely available and offered by various Registered Training Organisations, including TAFE, and universities. Check institution handbooks for course information.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

You can also become a games developer through an apprenticeship in Information Technology (Multimedia/Programming). Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Memberships with the Australian Computer Society are available to those who hold or are working towards suitable qualifications. There are a range of membership types available, allowing a progression through the various levels as a member's career develops.

### Employment Opportunities

Games developers often work as part of a team, but can work individually or on a freelance basis. With experience and sufficient start-up money, there are opportunities for self-employment.

Games development is a relatively new and dynamic growth industry that has developed out of a blending of creative and technical production.

Competition for jobs is intense and interstate and/or overseas experience is often needed to improve employment opportunities.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)
- Australian Graphic Design Association (National Office)  
☎ (08) 8411 3888 ✉ [secretariat@agda.com.au](mailto:secretariat@agda.com.au)  
🌐 [www.agda.com.au](http://www.agda.com.au)
- Design Institute of Australia (National Office)  
🌐 [www.design.org.au](http://www.design.org.au)

### Related Jobs

Analyst (Information Technology) (p 65); Artist (p 75); Graphic Designer (p 206); Illustrator (p 221); Multimedia Developer (p 281); Programmer (Information Technology) (p 335); Sound Technician (p 375); Systems Designer (Information Technology) (p 390); Web Designer/Developer (p 435).



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## Gaming Worker

Also known as Gaming Attendant and Gaming Dealer.

Gaming workers provide gamblers with gaming services in casinos and other gambling establishments.

Gaming workers may perform the following tasks:

- monitor cash given to cashiers and transactions of gaming tokens (called chips)
- keep an eye open for possible incidents and settle disputes arising at gaming tables
- deal games in accordance with casino rules, policies and procedures
- advise patrons about the rules and etiquette of games
- check gaming equipment and make sure it is in good condition
- report any missing or damaged equipment.

Gaming workers are required to do shift work, including nights, weekends and public holidays. They may have to stand for long periods of time. Uniforms may be provided.

### Specialisations

**Croupier** - shuffles and deals cards, spins roulette or money wheels or mini dice cage and explains and interprets the rules of games to customers. Croupiers announce and pay winning bets and collect losing bets, and sell gaming tokens at the gaming tables to customers.

**Gaming Inspector (Casino)** - supervises gaming table activities and staff.

**Gaming Inspector (Government)** - reports incidents of illegal activity by casino employees or patrons and attends court to give evidence where necessary. Government gaming inspectors check the financial statistics and taxation requirements of the casino, and conduct pre-licensing inspections and regular checks on hotels and clubs.

**Gaming Machine Worker** - operates and maintains the various gaming machines in the casino. They may also call and verify the results of Keno draws.

## Personal Requirements

- mature and confident
- high level of integrity
- able to make calculations quickly and accurately
- high level of personal grooming
- good communication skills and friendly personality
- able to work under pressure and deal with difficult customers
- able to concentrate for long periods of time without distraction
- good with hands
- at least 18 years of age.

## Education and Training

You can work as a gaming worker without formal qualifications, but employers usually like at least Year 10. You will probably get some informal training on the job.

You can also become a gaming worker through a traineeship in Hospitality. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Additional Information

Most people working in the gaming area are required to be licensed. Licensing requirements may include a police check, credit references and fingerprinting. You must also complete a Responsible Service of Gaming certificate, which may be incorporated into staff training or may have to be completed separately.

## Employment Opportunities

The Crown Casino runs its own training courses when new croupiers are required. Trainee croupiers are instructed in gaming rules, and basic chipping and shuffling skills.

Vacancies are usually advertised in major newspapers. Competition for available positions is strong. Contact the Crown Casino for further details.

## For Further Information

- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au
- Australian Hotels Association (VIC) 🌐 www.ahavic.com.au
- Crown Casino ☎ (03) 9292 7777 🌐 www.crownjobs.com.au

## Related Jobs

Betting Clerk (p 87); Sales Assistant (p 358).

## Garbage Collector

Also known as Rubbish Collector, Waste Collector and Waste Management and Graffiti Officer.

Garbage collectors collect household, commercial and industrial waste for disposal or recycling.

Garbage collectors may perform the following tasks:

- ride in or on garbage trucks
- collect waste and load it into bins or trucks
- return empty domestic bins to footpath
- report incidences of graffiti
- operate forklift and compacting equipment
- drive trucks, street sweeping machines or machinery at rubbish tips.

With experience and further training, it is possible to progress to supervisory and management positions.



Garbage collectors may operate their own business or work within a partnership collecting garbage bags and other rubbish from domestic and commercial premises.

Garbage collectors work outdoors in all weather conditions. They may work early in the morning and at night.

#### Personal Requirements

- enjoy outdoor and practical work
- physically fit.

#### Education and Training

You can work as a garbage collector without formal qualifications. You will probably get some informal training on the job.

You can also become a garbage collector through a traineeship in Asset Maintenance (Waste Management). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

You will need appropriate licences to drive vehicles and operate machinery. Truck drivers and garbage collectors involved in transporting waste products and toxic or flammable substances must have suitably endorsed licences.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

The majority of garbage collectors work for private rubbish removal companies. Their services are then contracted by local councils and corporations.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au

#### Related Jobs

Cleaner (p 119); Recycler (p 349); Truck Driver (p 419).

## Geographer

Geographers study and analyse the relationships between human activities and the natural and built environment.

Geographers may perform the following tasks:

- observe and measure natural and social phenomena, collecting data and compiling maps on climate; vegetation; soils; land surface features and distribution; human and animal populations; and social, economic, political and land use activities
- analyse and interpret statistical data, maps, charts and other geographic information
- interpret satellite imagery for assessing and mapping natural resources, land uses and human activities
- advise on issues such as industrial and commercial site locations, environmental management and placement of public facilities and services
- work with local and Indigenous populations to protect heritage sites
- advise or act as consultants to governments and organisations on urban and rural land use, regional economic development, resource planning and management, tourism, land degradation and erosion, environmental quality and boundary demarcations

- edit and assist in the preparation of maps, atlases, reports and other geographic information for analytical, administrative and cartographic purposes
- develop geographic information systems through information acquisition, coding, geographic database development management and applications
- analyse population data and forecast population trends
- develop, plan and execute regional and international development assistance projects
- analyse intelligence and provide advice to the military
- apply remote sensing, computer cartography and geographic information technologies
- prepare and write reports and scientific papers.

#### Specialisations

**Economic Geographer** - works in commercial, trading, banking and industrial organisations, analysing and planning the location of firms or branches of institutions and documenting the ways labour markets and economic production vary between locations and regions.

**Environmental Geographer** - deals with land and water management, urban and regional planning and natural hazards such as floods, drought and bushfires.

**Human Geographer** - analyses the forces influencing the patterns of populations and social, cultural and economic activities.

**Physical Geographer** - studies the physical environment and the forces which shape it. These could include climatic variability, land degradation, river quality and coastal erosion. At a broader level, they look at environmental conditions and how they have changed through time and what they will be like in the future.

#### Personal Requirements

- interested in natural or social sciences
- able to analyse and solve problems
- good written communication skills
- aptitude for computing.

#### Education and Training

To become a geographer you usually have to study geography or applied geography at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

You can study geography as part of an arts or science degree. You can also undertake a specialised degree in applied geography, resource and environmental management or environmental science. Relevant degree programs are widely available in Victoria.

#### Employment Opportunities

Geographers are rarely employed under the job title 'geographer'. They tend to be employed in local, state and federal government agencies, private sector organisations and public corporations. They work in town planning, environmental and resource management, regional development, education and a range of other roles depending upon their area of specialisation. Geographic information systems (GIS) is a growing employment area with geographers often using remote sensing technology, databases and other geographic information technologies. Some are self-employed and work as consultants.

Many geography graduates become teachers after completing a formal teaching course. See the entry for Teacher - Secondary.



#### For Further Information

- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ support@sssi.org.au  
🌐 www.spatialsciences.org.au

#### Related Jobs

Archaeologist (p 69); Biotechnologist (p 89); Cartographer (p 106); Cartographic Technician (p 106); Cultural Heritage Officer (p 138); Environmental Scientist (p 169); Geographic Information Systems Officer (p 201); Geologist (p 202); Natural Resource Manager (p 287); Surveyor (p 389); Teacher - Secondary (p 397); Urban and Regional Planner (p 423).

### Geographic Information Systems Officer ★

Also known as Land Information Systems Officer, Spatial Information Systems Officer, Surveying Technologist and Spatial Information Systems Technician.

Geographic information systems officers develop and customise geographic information systems and provide technical and analytical support to address issues such as environmental management, exploration and mining, land ownership and titles, urban and regional planning, utilities and asset management, and demographic marketing.

Geographic information systems officers may perform the following tasks:

- manipulate and analyse data such as geographic and land information source maps and survey data
- link spatial data for land administration purposes
- develop and customise computer programs used in geographic information systems
- prepare, edit and revise cartographic output for the preparation, reproduction and publication of maps.

The cartographic and analytical output produced by geographic information systems officers is used to aid in the efficient management and use of land assets within Australia.

#### Personal Requirements

- able to analyse and solve problems
- good communication and computing skills
- an interest in the environment
- able to produce detailed and accurate work
- able to work as part of a team.

#### Education and Training

To become a geographic information systems officer you usually have to complete a diploma or advanced diploma in spatial information services. However, entry to this occupation may be improved if you have a degree with a major in geographic information systems. Entry to the diploma courses usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physics and mathematics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the institutions you are interested in for more information as requirements may change.

#### Diploma Courses

*RMIT University (TAFE Division) - City Campus:*

Diploma of Spatial Information Services

Advanced Diploma of Spatial Information Services (entry via diploma)

#### *South West Institute of TAFE - Warrnambool Campus:*

Diploma of Spatial Information Services

#### Degree Courses

*RMIT University - City Campus:*

Bachelor of Applied Science (Surveying), majoring in geographic information systems, 4 years full time or equivalent  
Bachelor of Environmental Science, majoring in geographic information systems, 3 years full time or equivalent  
Bachelor of Science (Geospatial Science), 4 years full time or equivalent

*University of Melbourne - Parkville Campus:*

Bachelor of Environments, majoring in geomatics, 3 years full time or equivalent  
Bachelor of Science, majoring in geomatics, 3 years full time or equivalent

#### Additional Information

Graduates and students may be eligible for membership with the Surveying and Spatial Sciences Institute.

#### Employment Opportunities

The major employers of geographic information systems officers are federal, state, territory and local government organisations, statutory authorities, and private companies involved in land use, planning and management. There is a demand for many specialist skills, ranging from systems development (designing and building geographic databases, spatial management and analysis tools, and web delivery systems) to the application of geographic information systems to provide specialist solutions in environmental, business and development activities.

#### For Further Information

- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ support@sssi.org.au  
🌐 www.spatialsciences.org.au
- Mapping Sciences Institute, Australia (National Office)  
✉ msiau@gil.com.au 🌐 www.mappingsciences.org.au
- What is Surveying? ✉ trysurveying@alifewithoutlimits.com.au  
🌐 www.alifewithoutlimits.com.au
- School of Mathematical and Geospatial Sciences, RMIT University  
☎ (03) 9925 2283 🌐 www.rmit.edu.au/mathsgeo

#### Related Jobs

Cartographer (p 106); Forester (p 194); Geographer (p 200); Hydrographer (p 220); Surveyor (p 389); Urban and Regional Planner (p 423).

### Geological Engineer ★

Also known as Geotechnical Engineer.

Geological engineers identify and try to solve problems involving soil, rock and groundwater, and design structures in and below the ground, using the principles of earth science.

Geological engineers may perform the following tasks:

- investigate the engineering feasibility of planned new developments involving soil, rock and groundwater
- plan and undertake site investigations for proposed major engineering works such as bridges, dams and tunnels
- design measures to correct land contamination and salination
- design major structures in rock such as tunnels, basements and shafts
- perform computer analyses, use computer databases and generate computer-aided designs



- work out strategies to control landslides and areas of potential instability
- supervise the construction and performance of major engineering works involving excavation and/or exploration
- act as consultants or researchers, carrying out studies in any of the above fields of activity
- act in managerial positions and be responsible for coordination of multi-disciplinary study teams, staff recruitment and matters of work organisation.

Geological engineering includes a number of ground engineering specialities such as geotechnical engineering, land remediation, rock mechanics, groundwater hydrology and engineering geology.

Geological engineers may work with other professionals, pooling their expertise to solve particular problems. For example, they may work with environmental scientists, geologists and hydrologists on solving land degradation, groundwater and salination problems; with civil engineers in the design and construction of better transportation links; or with mining engineers in designing open-cut and underground mines, and on rehabilitation works on completion of mining.

Outdoor work is an essential aspect of geological engineering investigations. Geological engineers typically spend up to half of their working hours on field investigations and supervising construction of their designs.

#### Personal Requirements

- enjoy technical and engineering work
- willing to adhere to safety requirements
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work without supervision
- able to accept responsibility
- able to work independently or as part of a team
- enjoy working outdoors, sometimes in remote locations.

#### Education and Training

To become a geological engineer you usually have to study engineering at university with a major in geoscience or geotechnical engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, mathematics, and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Monash University - Clayton Campus:

Bachelor of Environmental Engineering, majoring in geoengineering, 4 years full time or equivalent

##### RMIT University - City Campus:

Bachelor of Engineering (Civil and Infrastructure), majoring in engineering (geoengineering) or geology, 4 years full time  
Bachelor of Engineering (Environmental Engineering), majoring in engineering (geological) or geology, 4 years full time

##### Swinburne University - Hawthorn Campus:

Bachelor of Engineering (Civil Engineering), majoring in geotechnical engineering, 4 years full time or equivalent

##### Victoria University - Footscray Park Campus:

Bachelor of Engineering (Civil Engineering), majoring in geosciences, 4 years full time

#### Additional Information

Graduates may be eligible for membership of Engineers Australia, the Geological Society of Australia and/or the Australasian Institute of Mining and Metallurgy.

#### Employment Opportunities

Geological engineers are employed by engineering consulting firms, by the civil, mining and environmental industries and by federal and state or territory government organisations. They may also work in areas of environmental consultancy and associated rehabilitation works. There are opportunities for promotion within companies and departments, or for self-employment.

Geological engineers have skills which are readily transferable between employers and may find work interstate or overseas.

Employment prospects are influenced by the number and size of construction projects planned or under construction.

#### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineyourcareer.org.au
- Geological Society of Australia ☎ (02) 9290 2194  
✉ info@gsa.org.au 🌐 www.gsa.org.au
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ education@minerals.org.au 🌐 www.miningcareers.com
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ careers@ausimm.com.au  
🌐 www.ausimm.com.au

#### Related Jobs

Civil Engineer (p 116); Geologist (p 202); Metallurgist (p 271); Mining Engineer (p 278); Petroleum Engineer (p 314).

## Geologist 🌿

Also known as Geoscientist.

Geologists study the nature, composition and structure of the earth to increase scientific knowledge and locate materials and minerals. They also advise on the extraction of minerals, as well as environmental protection and rehabilitation of land after mining.

Geologists may perform the following tasks:

- explore specific areas of the earth to work out its structure and the types of rocks or minerals that exist
- study rock cores, cuttings and samples
- study geostatistics and sampling theory
- study fossilised life forms and date rock strata
- study the nature and effects of natural events such as erosion, sedimentation, glaciation, earthquakes and volcanic hazards
- locate and manage groundwater resources, investigate groundwater contamination and land salinity
- undertake geochemical sampling of stream sediment and soils
- undertake ground magnetic and gravity surveys
- examine geological specimens in laboratories using optical and electron microscopes, X-ray diffraction and chemical and mechanical techniques
- assist in determining the economic viability of extracting earth resources
- advise on the geological suitability of sites for structures such as tunnels, roads, coastal installations, bridges and water supply schemes



- contribute information about land use, planning and rehabilitation, and the effects of pollution on seabeds to environmental assessments
- use computers to integrate and interpret data sets of geological information
- prepare geological models to describe processes and predict future situations
- prepare geological reports and maps.

Geologists work in laboratories, offices and in the field. They may work independently or as members of a mixed team of professional and non-professional staff. They may have contact with the public, especially if needing permission to go onto private land. Fieldwork can involve spending time in remote desert, tropical or Antarctic/arctic regions. The hours of work can be irregular and it may be necessary to spend long periods away from home.

#### Specialisations

**Engineering Geologist** - works with engineers to carry out detailed geological mapping before major construction work; assesses the qualities of building stone and quarry rocks used for building and road construction; and assesses geological structures for open cut and underground mine safety, and foundations for building.

**Environmental Geologist** - studies the nature of ground and surface waters, soil movement, erosion and degradation, salinisation and coastal erosion; the effects of pollution and human activity on rivers; and the environmental effects of mining, nuclear energy and waste disposal.

**Field/Exploration Geologist** - carries out surveys to determine the geological structure, distribution and age of rocks and can indicate where particular natural resources are likely to be found.

**Geochemist/Mineralogist/Petrologist** - studies the mineral and chemical composition of rocks using equipment such as optical and electron microscopes, X-ray diffraction, atomic absorption and mass spectrometry. They may also be involved in examining the transport of pollutants through rock masses.

**Geomorphologist** - studies the origin and age of landforms and land surfaces.

**Hydrogeologist/Hydrologist** - evaluates and manages the quality, quantity, reliability and sustainability of all aspects of water resources.

Hydrologists are concerned with surface water processes such as rainfall, run-off, evaporation, river flows (floods and droughts), erosion and water pollution. Hydrogeologists are concerned with groundwater and the soil-moisture variation, amount, speed and direction of groundwater flow, extraction and replenishment of groundwater, and water chemistry and pollution.

**Mathematical Geologist** - predicts the outcome of geological problems by applying the most appropriate data and computer models.

**Mine Site Geologist** - controls the grade (or quality) of the ore mined. They also locate extensions to ore deposits by deciding which areas of an ore body should be mined at a particular time, and defining the ore limits at the mine based on economic considerations.

**Palaeontologist** - examines, classifies and describes animal and plant fossils found in sedimentary rocks. Understanding the evolutionary order of the fossil record is particularly important in oil exploration.

**Petroleum Geologist** - explores and charts stratigraphic arrangement, composition and the structure of the earth's surface

layers to locate petroleum and natural gas. They estimate the extent of reserves using seismic and geological survey evidence and recommend the most appropriate drilling and production methods.

**Stratigrapher** - deals with the order in which sedimentary rock strata have been deposited, their age and the processes by which they were formed.

**Structural Geologist** - assists engineers by advising how rock structures can influence failure of weight bearing loads in bedrock when seeking building foundations. They also conduct water and seepage into deeper zones and aquifers.

#### Personal Requirements

- enjoy technical and engineering activities
- willing to adhere to safety requirements
- able to work independently or as part of a team
- able to prepare accurate records and reports
- physically fit
- prepared to work outdoors in a range of environments.

#### Education and Training

To become a geologist you usually have to study science or applied science at university with a major in geology or applied geology. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physics, geography, psychology and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *Monash University - Clayton Campus:*

Bachelor of Environmental Science, majoring in geosciences, 4 years full time or equivalent

Bachelor of Science, majoring in geosciences, 3 years full time or equivalent

##### *University of Ballarat - Mount Helen Campus:*

Bachelor of Applied Science (Geology), 3 years full time or equivalent

Bachelor of Science, majoring in environmental geology, geology or geosciences, 3 years full time or equivalent

##### *University of Melbourne - Parkville Campus:*

Bachelor of Science, majoring in geology, 3 years full time or equivalent

#### Additional Information

Formal training is followed by continuous vocational training during your working life to enhance skills in business, computing, management and technical knowledge.

Graduates may be eligible after a qualifying period for membership of the Australian Institute of Geoscientists and/or the Australasian Institute of Mining and Metallurgy.

#### Employment Opportunities

Geologists work for mining and petroleum companies involved in the exploration, extraction and production of minerals and hydrocarbons; engineering and environmental consultancy firms; geological survey organisations; and state, territory and federal government departments.

Employment opportunities also exist in the securities industry and financial sector where geologists are employed as industry analysts and/or advise on the economic viability of particular mining projects.



Geologists may progress to exploration managers and even company managers or directors. They are highly mobile, both within Australia and internationally. There are some opportunities for self-employment.

#### For Further Information

- Geological Society of Australia ☎ (02) 9290 2194  
✉ info@gsa.org.au 🌐 www.gsa.org.au
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ education@minerals.org.au 🌐 www.miningcareers.com
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ careers@ausimm.com.au  
🌐 www.ausimm.com.au
- The Australian Institute of Geoscientists ☎ (08) 9427 0820  
✉ aig@aig.asn.au 🌐 www.aig.org.au

#### Related Jobs

Biotechnologist (p 89); Civil Engineer (p 116); Environmental Scientist (p 169); Geographer (p 200); Geological Engineer (p 201); Geophysicist (p 204); Geoscience Technician (p 205); Hydrographer (p 220); Metallurgist (p 271); Mining Engineer (p 278); Natural Resource Manager (p 287); Petroleum Engineer (p 314).

## Geophysicist 率

Geophysicists study the structure and composition of zones below the surface of the earth by taking measurements using seismic, gravity, magnetic and electrical methods.

Geophysicists may perform the following tasks:

- supervise the collection and processing of seismic data for petroleum exploration and interpret and map prospects on which to drill a well
- plan, conduct and interpret geophysical surveys in exploring for mineral commodities such as gold, base metals, diamonds and coal using various electrical techniques, and magnetic or gravity surveys
- design, develop and operate computer systems and software for processing and interpreting geophysical data sets
- plan, conduct and interpret geophysical surveys to locate and estimate quantities of recoverable groundwater reserves, the distribution and extent of salinity in agricultural areas or the extent of pollution in the ground or atmosphere
- carry out geophysical surveys of areas prior to the construction of major engineering structures such as dams, bridges or roadworks
- study earthquakes and earthquake risk, time variations and the distribution of the earth's magnetic and gravity fields, the physics of rocks and minerals, and fluid dynamics of molten rock (magma), oceans and atmosphere
- research new methods and instrumentation
- develop instrumentation for taking physical measurements in surveys including gravity meters, magnetometers, electrical, electromagnetic and radar transmitters and receivers, seismic recorders and radiometric systems
- develop mathematical models as an aid to interpreting geophysical survey results.

Geophysicists often work as part of a team of geoscientists. Some carry out fieldwork which may involve a lot of travel, often to remote areas.

The two main divisions of geophysics are exploration geophysics, which deals with the search for the earth's resources, and global geophysics, which uses the same techniques to study the earth as a whole and study earthquakes, magnetic fields, etc. Geophysicists

often specialise in areas such as seismology and seismic interpretation, borehole geophysics, mineral exploration, engineering geophysics, environmental or groundwater geophysics, or computer processing and software development.

#### Personal Requirements

- enjoy technical and engineering work
- alert and analytical mind
- enjoy applying physics and mathematics in practical ways
- good oral and written communication skills
- able to work independently or as part of a team
- willing to work in remote areas.

#### Education and Training

To become a geophysicist you usually have to study science at university with a major in geophysics or geosciences, preferably at honours level. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, geography, mathematics and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Monash University - Clayton Campus:

Bachelor of Science, majoring in geosciences and physics, 3 years full time or equivalent

Bachelor of Science Advanced with Honours, majoring in geosciences and physics, 4 years full time

##### University of Ballarat - Mount Helen Campus:

Bachelor of Applied Science (Geology), majoring in geosciences, 3 years full time or equivalent

##### University of Melbourne - Parkville Campus:

Bachelor of Science, majoring in geophysics, 3 years full time or equivalent

#### Additional Information

The Australasian Institute of Mining and Metallurgy website has a range of geosciences career and education information, including a list of recognised courses.

Graduates may be eligible after a qualifying period for membership of the Australian Institute of Geoscientists, the Australian Society of Exploration Geophysicists and/or the Australasian Institute of Mining and Metallurgy.

#### Employment Opportunities

The majority of geophysicists are exploration geophysicists, employed by oil and mineral exploration companies. They are also employed by data processing centres, computer software development companies, environmental groups, state government geological survey teams, the Australian Geological Survey Organisation, the Australian Bureau of Mineral Resources, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and universities. There are some opportunities for self-employment as geophysical consultants.

Because the skills of geophysicists can be applied in other areas, alternative employment is available when activity in the mineral or petroleum industries declines.

#### For Further Information

- Australian Society of Exploration Geophysicists (National Secretariat) ☎ (08) 9427 0838 ✉ secretary@aseg.org.au  
🌐 www.aseg.org.au
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ education@minerals.org.au 🌐 www.miningcareers.com



- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ careers@ausimm.com.au 🌐 www.ausimm.com.au
- The Australian Institute of Geoscientists ☎ (08) 9427 0820 ✉ aig@aig.asn.au 🌐 www.aig.org.au

#### Related Jobs

Biotechnologist (p 89); Geologist (p 202); Geoscience Technician (p 205); Mathematician (p 261); Mining Engineer (p 278); Petroleum Engineer (p 314); Physicist (p 318).

## Geoscience Technician 🌿

Also known as Earth Science Technical Officer, Geological Technician, Geophysical Technician and Science Technical Officer.

Geoscience technicians assist earth scientists such as geologists, engineers and geophysicists to find and develop mineral and fuel resources. They make observations, collect and analyse samples, record information, and look after the practical tasks involved in servicing a remote field operation.

Geoscience technicians may perform the following tasks:

- order, check, pack and ship equipment and supplies for field surveys
- manage small field camps and, in some cases, cook for very small groups
- mark outlines of ore, waste and drill hole patterns in operating mines
- collect, record and transport samples of rock, soil, drill cuttings and water
- undertake geophysical surveys, involving the measurement of such factors as magnetism and gravity, and use Global Positioning Systems (GPS) technology to establish deposit locations
- operate geophysical instruments to complete surveys which outline hidden rock features
- collate information collected from a range of sources such as geochemical sampling surveys, seismic surveys and meteorological observations, and carry out computer processing of the data
- use digital technology to produce geological and geophysical maps and sections
- supervise others doing these tasks.

Geoscience technicians may specialise in a number of different areas such as aerial sampling and exploration, seismic observation and well logging (detecting materials to be mined in wells). They may also specialise in either laboratory or fieldwork.

Geoscience technicians spend long periods working in remote locations throughout Australia.

#### Personal Requirements

- enjoy scientific activities
- able to prepare accurate records and reports
- able to work as part of a team
- interested in rocks, fossils and minerals
- physically fit
- willing to work in remote locations.

#### Education and Training

To become a geoscience technician you usually have to complete a diploma in geoscience or engineering and mine surveying. Entry to diploma courses usually requires you to gain your VCE. As subjects and requirements can vary between institutions, you should contact your chosen institution for full details.

There are no suitable courses available in Victoria. The following courses are offered interstate.

#### Diploma Courses

*South West Institute of Technology (WA) - Bunbury Campus:*

Diploma of Surveying (Mining and Engineering)

*TAFE SA - O'Halloran Hill Campus:*

Diploma of Geoscience

#### Additional Information

A drivers licence with at least six months driving experience is usually required. A first aid certificate is also highly recommended.

#### Employment Opportunities

Geoscience technicians work for mining and exploration firms, government agencies and geology departments of universities. Some competition from recent geology university graduates can be expected, as many start their careers as technicians.

Many technicians work on a subcontracted basis in mineral and petroleum exploration. Some are self-employed in small geological contracting companies.

Job opportunities depend largely on the level of activity in the mining industry and staff turnover.

#### For Further Information

- Geological Society of Australia ☎ (02) 9290 2194 ✉ info@gsa.org.au 🌐 www.gsa.org.au
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ careers@ausimm.com.au 🌐 www.ausimm.com.au
- The Australian Institute of Geoscientists ☎ (08) 9427 0820 ✉ aig@aig.asn.au 🌐 www.aig.org.au

#### Related Jobs

Geologist (p 202); Geophysicist (p 204); Hydrographer (p 220); Science Field Officer (p 362); Survey Assistant (p 387); Surveying Technician (p 388).

## Glass and Glazing Tradesperson

Glass and glazing tradespeople cut, shape and install glass used in windows, including shopfronts, doors, walls, mirrors, display cabinets and furniture.

Glass and glazing tradespeople may perform the following tasks:

- interpret drawings and plans or measure the space to work out the amount of glass required
- lay sheets of glass onto glass cutting tables and score (mark) the surface of the glass using a variety of glasscutters
- remove excess glass with notched tools or glass pliers
- cut, drill and notch holes in glass with diamond-tipped cutters and drills
- remove broken glass and mirrors and prepare surfaces for re-glazing
- smooth and polish edges on a grinding or bevelling wheel
- fit the glass using putty, chemical compounds or rubber strips into timber, steel and aluminium frames
- assemble and secure parts of pre-made glass units, such as shop fittings, display cases and shower enclosures
- install metal window and door frames into which glass panels are fitted, such as for shower screens and sliding doors
- fabricate aluminium for domestic and commercial applications, and fit and install on site
- inscribe decorative edges on glass and mirrors.



The work falls into the three areas of cutting the glass, bevelling or smoothing edges and fitting or glazing glass into prepared openings.

With experience and sometimes further training, glass and glazing tradespeople can progress to positions of leading hand, supervisor, sales representative, estimator or management. They can also be trained in the use of high-tech specialised equipment used in the manufacture of secondary products, such as toughened and laminated safety glasses, insulated glass, and coated glass.

#### Specialisations

**Flat Glass Tradesperson** - measures, cuts, finishes, fits and installs glass in windows, doors, walls, mirrors, display cabinets and other furniture.

**Furniture/Millworking Tradesperson** - installs glass during assembly in prefabricated wood and metal products such as doors, window sashes, partitions and cabinets.

**Glass Beveller** - applies decorative or protective-edge treatment to glass. They bevel (smooth) edges of mirrors or other flat glass items using grinding wheels or abrasive belts. Other treatment may include drilling holes, end-notching, cut outs and finger slots.

**Glass Cutter** - cuts glass sheets by hand or machine to obtain sections of pre-described dimensions, either square or shaped, and removes blemishes.

**Glass Embosser** - engraves designs in glass by grinding, sandblasting or using acid. After the design has been made, the operator removes the residue, protective tapes and coatings, and cleans the glass.

**Glass Silverer** - selects the polish and scrubs glass for mirror making. A silvering solution is then sprayed over the surface and allowed to drain off. The mirrors are then washed, dried and coated to protect the silvering from moisture.

**Glazier/Structural Glass Tradesperson** - installs glass into prepared openings such as windows, doors, skylights and display units, or fits glass to prepared surfaces such as interior walls. This can be done in a factory environment if fitting glass into prefabricated products, or on site in the case of new construction or repair.

**Leadlight Worker** - designs and constructs stained-glass windows, doors, partitions and decorative works of art in a variety of buildings. The glass is fitted together with strips of lead, using putty to hold the glass.

#### Personal Requirements

- enjoy practical work
- steady hands for precise work
- able to work at heights
- able to calculate and measure accurately.

#### Education and Training

To become a glass and glazing tradesperson you usually have to complete an apprenticeship in Glass and Glazing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

In Victoria, glass and glazing tradespeople must either be accredited as, or work under the supervision of a registered building practitioner.

Contact the Victorian Building Commission ([www.buildingcommission.com.au](http://www.buildingcommission.com.au)) for more information.

If working on a construction site, glass and glazing tradespersons may also be required to undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

#### Employment Opportunities

Many glass and glazing workers are employed in cities by building-hardware and material suppliers, glass merchants, glaziers and glass processors. Some are self-employed and work mainly on small or domestic jobs, due to the high capital cost of equipment for commercial jobs.

As with most of the building occupations, employment in this trade may depend upon the level of activity in the construction and housing industries. Repair and maintenance work is always needed.

Greater mechanisation, such as the use of computerised cutting machines, has reduced opportunities for glass workers but this has been offset by the increased use of glass on commercial buildings.

#### For Further Information

- Australian Glass and Glazing Association ☎ [www.agga.org.au](http://www.agga.org.au)
- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Glass and Glazing Association Victoria ☎ (03) 9536 3118  
✉ [glass@assocmanagement.com.au](mailto:glass@assocmanagement.com.au) ☎ [www.ggav.org.au](http://www.ggav.org.au)

#### Related Jobs

Cabinetmaker (p 99); Carpenter (p 105); Joiner (p 238).

## Graphic Designer

Also known as Commercial Artist.

Graphic designers produce art and layouts of wording for reproduction in print and electronic media such as magazines, newspapers, books and websites, and for corporate identity programs, exhibitions and advertising.

Graphic designers may perform the following tasks:

- talk to clients to get a clear understanding of their visual communication requirements and develop design 'roughs' (sketches)
- prepare comprehensive layouts of the design using techniques such as photography, illustration and computer-generated imagery
- give designs to clients for approval
- prepare designs for print
- design and set up exhibitions for advertising or educational purposes
- supervise all design production stages including arranging and supervising printing.

Graphic designers may specialise in a number of fields including television, film and computer graphics; set and exhibition design; corporate design; book and magazine design; and advertising and illustration. They may progress to positions as design directors, art directors or creative directors.

Graphic designers may work as members of a design team in design studios or advertising agencies, or alone undertaking consultancy or freelance work.

#### Personal Requirements

- creative and imaginative
- understanding of colour and form



- able to work under pressure and meet deadlines
- good communication skills
- good marketing abilities
- able to work as part of a team.

#### Education and Training

To become a graphic designer you usually have to complete a diploma or advanced diploma in graphic design. However, entry to this occupation may be improved if you have a degree in graphic design. To get into these courses you usually need to gain your VCE. Applicants may also be required to submit a written application, attend an interview and/or submit a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the institutions you are interested in for more information as requirements may change.

Relevant diploma and advanced diploma courses are widely available and are offered by Registered Training Organisations, including TAFE. Most universities in Victoria offer degrees in graphic design and related areas. Contact your preferred institution for full details.

#### Additional Information

Computer and technical skills are becoming essential as the use of technology in graphic design increases.

#### Employment Opportunities

Graphic designers work for advertising agencies, graphic design houses, commercial art studios, computer games developers, retail stores, printing firms, book and newspaper publishers, and marketing and public relations firms. They often work as part of a team or they may work on a freelance basis.

Quality, individuality, skill and a high standard of work are needed to find employment. Competition for jobs is very high and many employers consider the quality of artwork in a graduate's portfolio to be the most important selection criterion.

Smaller design studios often prefer graduates who can do their own artwork as well as formulate design concepts. There may also be opportunities to move into related industries such as film and television.

#### For Further Information

- Australian Graphic Design Association (National Office)  
☎ (08) 8411 3888 ✉ [secretariat@agda.com.au](mailto:secretariat@agda.com.au)  
🌐 [www.agda.com.au](http://www.agda.com.au)
- Design Institute of Australia (National Office)  
🌐 [www.design.org.au](http://www.design.org.au)

#### Related Jobs

Advertising Account Executive (p 55); Artist (p 75); Craftsperson (p 135); Desktop Publisher (p 145); Games Developer (p 198); Graphic Prepress Tradesperson (p 207); Illustrator (p 221); Industrial Designer (p 223); Interior Designer (p 234); Multimedia Developer (p 281); Signmaker (p 372); Textile Designer (p 401); Visual Merchandiser (p 430); Web Designer/Developer (p 435).

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## Graphic Prepress Tradesperson

Graphic prepress tradespeople use computerised typesetting and image assembly to design layouts and assemble text and graphics into page formats for printing.

Graphic prepress tradespeople may perform the following tasks:

- develop visual concepts
- prepare layouts and finished artwork by deciding the type size and style, line width and visual composition of illustrations and photographs
- manipulate images and type to meet production and design requirements using a variety of computer hardware and software
- produce and process photographic images
- electronically scan, separate and correct the colour of images
- prepare a variety of printing mediums including letterpresses, offset lithographic plates, gravure cylinders and flexographic plates or blocks
- input, transfer and manipulate electronic data for a variety of devices including typesetting systems, scanners and multimedia systems
- manage digital data and client files.

With experience and sometimes further training, it is possible to progress to supervisory and management positions.

#### Personal Requirements

- enjoy technical work
- interested in typography, art and design
- able to carry out detailed work
- good knowledge of the English language
- good eyesight (may be corrected) and normal colour vision
- good hand-eye coordination
- high degree of concentration and patience.

#### Education and Training

To become a graphic prepress tradesperson you usually have to complete an apprenticeship in Printing and Graphic Arts (Graphic Pre-Press). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Graphic prepress tradespeople are employed by newspapers and printing firms. Technological development has been rapid in this trade



with widespread application of computerised systems. Tradespeople familiar with the new techniques and technology are in greater demand.

#### For Further Information

- Graphic Arts Services Association of Australia (National Office)  
☎ (02) 9386 1595 or 1300 131 787 (regional callers only)  
✉ support@gasaa.asn.au 🌐 www.gasaa.asn.au
- Innovation and Business Skills Australia 🌐 www.ibsa.org.au
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ info@printnet.com.au 🌐 www.printnet.com.au

#### Related Jobs

Desktop Publisher (p 145); Graphic Designer (p 206); Offset Printer (p 301); Photographic Processor (p 317); Printing Hand (p 331); Printing Machinist (p 332); Screen Printer/Stencil Preparer (p 362).

## Guide Dog Instructor

Also known as Orientation and Mobility (Guide Dog) Instructor.

Guide dog instructors train dogs to guide people who are blind or vision-impaired and/or train these people to use and care for a guide dog.

Guide dog instructors may perform the following tasks:

- work with a team of approximately eight specially chosen 12-month-old dogs that have undergone initial socialisation on the Guide Dogs Association of Australia's puppy-raising scheme
- over a period of four to six months, put the dogs through an intensive assessment and training program
- train the dogs to guide people with little or no sight through all likely independent travel situations
- conduct interviews and assessments on all applicants for guide dogs
- conduct a matching meeting, whereby guide dogs are matched to clients on the waiting list
- train a person who is vision-impaired with a guide dog at either a residential training facility or within the person's home area. Training is conducted for three to six weeks. For people trained in the centre-based program, additional follow-up instruction of three to five days is provided on the person's return home.

#### Personal Requirements

- good health, hearing and eyesight
- full mobility
- desire to work with people who are vision-impaired
- be flexible and adaptable
- able to work both independently and as part of a team
- love of, and aptitude for, working with dogs.

#### Education and Training

To become a guide dog instructor you usually have to study a relevant degree at university, followed by completion of a 2-3-year cadetship with Guide Dogs Victoria, including a postgraduate course in orientation and mobility from La Trobe University.

Relevant degrees include those majoring in orientation and mobility, social sciences, disability studies, human services, psychology or education. These are widely available at universities in Victoria.

To get into these courses you usually need to gain your VCE. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

#### Additional Information

Many guide dog schools in Australia are members of the International Guide Dog Federation (IGDF), which comprises of 84 guide dog schools from around the world. A qualification obtained from an IGDF-accredited school is recognised internationally by member schools.

#### Employment Opportunities

Guide dog instructors are employed by the guide dogs associations around Australia and internationally.

Job opportunities depend on the incidence of blindness in the community and the availability of funds for associations. There is a high level of competition for available positions.

#### For Further Information

- Guide Dogs Victoria ☎ (03) 9854 4444 or 1800 804 805 (FREECALL) ✉ info@guidedogsvictoria.com.au  
🌐 www.guidedogsvictoria.com.au

#### Related Jobs

Dog Trainer (p 151); Horse Trainer (p 215); Orientation and Mobility Instructor (p 304).

# H

## Hairdresser

Hairdressers cut, style, colour, straighten and permanently wave hair with chemical solutions, and provide clients with hair and scalp treatments.

In most salons, the senior hairdressers and the more advanced apprentices cut and style hair. Apprentice hairdressers undertake routine tasks in the initial stages, assisting senior hairdressers with client preparation, shampooing, application and removal of simple hairdressing treatments, and sterilisation and maintenance of equipment. As apprentices gain experience they carry out more complex tasks under supervision.

Hairdressers may perform the following tasks:

- talk to clients about their requirements
- cut hair using clippers, scissors or razors
- shampoo, condition and rinse hair
- provide services such as bleaching, conditioning, permanent waving, straightening and tinting
- dry and style hair using brushes, combs, straightening irons and other equipment
- shave and trim beards and moustaches
- advise clients on hair care
- block (shape), clean, colour, adjust, curl and cut wigs and hairpieces
- attend hairdressing seminars and training in order to keep up to date with new products and techniques
- operate a cash register and computer
- perform reception duties such as answering telephone calls and making appointments
- sell retail products
- maintain client records
- clean the salon, work areas and equipment.

Hairdressers may be employed in women's, men's or unisex salons. They spend most of the day on their feet and are usually required to work staggered shifts to fit in with salon business hours. They have a high level of public contact, so need to be well-presented.



### Personal Requirements

- good health with no skin allergies
- pleasant personality
- good communication skills
- able to work under pressure
- good hand-eye coordination
- patience
- some creative flair
- attention to detail
- able and willing to follow instructions.

### Education and Training

To become a hairdresser you usually have to complete an apprenticeship in Hairdressing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE, and some private training colleges. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You may also be able to enter this occupation through completion of a competency-based hairdressing course through a Registered Training Organisation. Contact the institutions you are interested in for more information as requirements may change.

### Certificate Courses

*Melbourne College of Hair and Beauty:*

Certificate III in Hairdressing

*TAFE Victoria - various locations:*

Certificate III in Hairdressing

*TK Melbourne:*

Certificate III in Hairdressing

### Employment Opportunities

The majority of hairdressers are employed in hairdressing salons. Most hairdressers work in small salons of between four to six people, while some work in large department stores.

Hairdressers may also be employed as stylists for TV, film, theatre or advertising agencies.

Hairdressers with good retailing skills (selling products or additional treatments) are particularly in demand. Many hairdressers, after a number of years working in the industry, set up their own businesses, enter into partnerships or teach hairdressing.

### For Further Information

- Service Skills Australia ☎ [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Hairdressing and Beauty Industry Association (VIC) ☎ (03) 8862 6521 ☎ [www.hbia.com.au](http://www.hbia.com.au)

### Related Jobs

Beauty Therapist (p 85); Body Artist (p 90); Make-up Artist (p 253); Nail Technician (p 286); Trichologist (p 419).

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## Handyperson

Also known as Janitor.

Handypersons repair and maintain their clients' homes or other workplaces, such as residential buildings, schools, offices, holiday camps, or caravan parks and associated grounds.

Handypersons may perform the following tasks:

- clear gutters
- repair broken fixtures or fittings
- apply paint and plaster
- fit, maintain or repair irrigation systems
- replace light bulbs
- repair or replace ceiling or exhaust fans and filters
- clean smoke detectors
- erect shelving units or other built-in furniture
- gardening duties such as weeding, digging, planting and pruning.

Handypersons work indoors and outdoors and are required to work in all weather conditions. They usually work long hours, which may involve early mornings and late afternoons. They may need to work at heights and lift heavy objects.

### Specialisation

**Caretaker** - works at a rental property and carries out general maintenance duties, patrols buildings and grounds to ensure security, and cleans common shared facilities, grounds and gardens. Caretakers may also collect rent from tenants.

### Personal Requirements

- enjoy practical and manual work
- excellent people skills
- able to work independently
- methodical
- honest and reliable
- physical fitness, strength and stamina
- a good sense of balance and ability to work at heights.

### Education and Training

You can work as a handyperson without formal qualifications. You will probably get some informal training on the job.

Entry requirements may vary, but employers generally require Year 10. Experience in other related jobs such as cleaning, horticulture, or building and mechanical trades is an advantage.

### Additional Information

A current drivers licence is usually required.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance Training



Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

A high proportion of handypersons are self-employed, or they may be employed on a permanent, part-time or casual basis by larger firms with numerous employees. Because they usually work for themselves, their workload corresponds with demand for their services. However, there is generally more work for handypersons over the summer months. They usually travel locally to attend jobs.

Opportunities exist for experienced handypersons to take on jobs with greater responsibility in building maintenance and management.

#### For Further Information

- Construction and Property Services Industry Skills Council

☎ (02) 6253 0002 ✉ info@cpsisc.com.au

🌐 www.cpsisc.com.au

- Victorian Caravan Parks Association (VicParks)

☎ (03) 9328 3280 ✉ admin@vicparks.com.au

🌐 www.vicparks.com.au

#### Related Jobs

Caravan Park Attendant (p 103); Cleaner (p 119); Farm Hand (p 171); Home Improvement Installer (p 213); Horticultural Assistant (p 216); Strata Managing Agent (p 386).

## Health Information Manager

Also known as Medical Records Administrator.

Health information managers combine knowledge of health care processes, health records and administration, information management and human resource management to provide services that meet the medical, legal, ethical and administrative requirements of the health care system.

Health information managers may perform the following tasks:

- plan and develop health information systems for various types of health care facilities including computerised patient identification systems, coding and analysis of diseases and procedures, and the design of health record forms
- revise and test the effectiveness of existing health information record services in hospitals and other health care facilities
- develop and implement new policies and procedures for handling health information in accordance with professional ethics, institutional requirements and relevant legislation including the Freedom of Information Act
- select, supervise and manage staff
- instruct health record service and other staff in the policies and procedures associated with the control, use and retrieval of health information
- develop in-service training programs for health record and other health professional staff
- control the transfer of relevant health service data to state health departments
- perform management functions such as workplace design, financial planning, budgetary control, quality assurance, and selection of equipment and supplies
- assist in medical research and health care projects.

Health information managers usually work in hospitals or other health facilities where they liaise with doctors, nurses, other health professionals and administrative staff. They may have some contact with the public. Some positions involve substantial managerial responsibility.

#### Specialisation

**Health Informatician** - makes use of information technologies and computer sciences to develop and administer systems which accurately use, store, retrieve and exchange information in the health care field.

#### Personal Requirements

- organisational ability
- potential to manage staff
- good written and oral communication skills.

#### Education and Training

To become a health information manager you usually have to study science at university with a major in health information management. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physics, mathematics and physical education are normally required. Courses are also offered by distance education. Contact the university for more information as requirements may change.

#### Degree Courses

*La Trobe University - Bundoora Campus:*

Bachelor of Health Sciences/Master of Health Information Management, 4 years full time or equivalent

#### Additional Information

Students and graduates of accredited courses can apply for membership of the Health Information Management Association of Australia (HIMAA).

#### Employment Opportunities

Health information managers are mostly employed by public and private hospitals. Other areas of employment include medical research centres, government health departments, cancer registries, group medical practices and private employers such as computer companies, imaging consultants, educational facilities and professional bodies.

Employment prospects for health information managers have increased due to technological advances, a growing demand for patient information and more sophisticated health data.

#### For Further Information

- Health Information Management Association of Australia Ltd

☎ (02) 9887 5001 ✉ himaa@himaa.org.au

🌐 www.himaa.org.au

#### Related Jobs

Archivist (p 72); Clinical Coder (p 120); Hospital Administrator (p 217); Librarian (p 246); Records and Information Manager (p 347).

## Health Promotion Officer

Also known as Health Promotion Practitioner.

Health promotion officers work with various groups to improve the health of individuals and the community.

Health promotion officers may perform the following tasks:

- plan and coordinate health promotion programs for community groups
- inform and involve other health professionals in community health issues
- design and develop public information campaigns using radio, television, newspapers, pamphlets, posters and websites
- design school curriculum material.



Health promotion officers often take part in campaigns and small community programs covering issues such as family, the environment, social change, nutrition, exercise, drugs and sexuality.

Health promotion officers may need to travel and may be required for evening and weekend work.

With experience, health promotion officers can progress into supervisory and managerial positions.

#### Personal Requirements

- good oral and written communication skills
- good negotiation skills
- organisational ability
- able to work independently or as part of a team.

#### Education and Training

To become a health promotion officer you usually have to study health promotion at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

The following universities offer bachelor degrees with majors in health promotion, 3 to 4 years full time or equivalent.

#### Degree Courses

*Deakin University - Burwood, Geelong and Warrambol Campuses*

*Monash University - Caulfield Campus*

*RMIT University - Bundoora Campus*

*University of Ballarat - Mount Helen Campus*

*Victoria University - St Albans Campus*

#### Employment Opportunities

Many health promotion officers are employed by government health departments to create programs such as the Quit Smoking and Drink Safe campaigns. They also find employment in non-government organisations such as cancer councils, heart foundations, and asthma foundations, and also work in rural public community health units and local government departments.

Employment prospects are dependent on the level of funding allocated to health promotion.

#### For Further Information

- Australian Health Promotion Association (National)

☎ (07) 5430 2873 ✉ [ahpa@usc.edu.au](mailto:ahpa@usc.edu.au)

🌐 [www.healthpromotion.org.au](http://www.healthpromotion.org.au)

#### Related Jobs

Consumer Scientist (p 128); Dietitian (p 147); Environmental Health Officer (p 168); Home Economist (p 213); Midwife (p 274); Nurse - Enrolled (p 295); Nurse - Registered (p 296); Nutritionist (p 298); Psychologist (p 337); Social Worker (p 373); Training Officer (p 414); Veterinarian (p 428); Welfare Worker (p 436).

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## Heat Treater

Also known as Furnace Operator.

Heat treaters control furnaces and cooling equipment to change the physical properties of metals and metal objects, making them hard, tough, resilient or suitable for machining.

Heat treaters may perform the following tasks:

- load items to be treated into the furnace and bring the metal to a specified temperature
- use computer controlled furnaces
- use new technologies, such as advanced vacuum furnaces
- check all gauges and controls during treatment to make sure they are working correctly
- harden metal by heating it to the required temperatures (this varies with different metals) and dipping it in oil, water, brine or other solutions
- surface-harden metal components to improve their thin resistance to wear and abrasion
- use special instruments to test the hardness and mechanical properties of treated metals.

With experience and sometimes further training, it is possible to become a leading hand or supervisor.

Heat treaters often work in hot environments.

#### Personal Requirements

- enjoy practical and manual work
- able to work as part of a team
- enjoy working with mechanical equipment
- basic computer skills.

#### Education and Training

You can work as a heat treater without formal qualifications. You will probably get some informal training on the job.

You can also become a heat treater through a traineeship in Engineering. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Metal and Engineering Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Heat treaters are employed mainly by foundries, steel pipe and tube manufacturers, and firms which make iron and steel products. Employment opportunities also exist with contract heat treatment companies, hardware and automotive component manufacturers, and aircraft component companies.

#### For Further Information

- Australian Industry Group 🌐 [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Heat Treatment Australia ☎ (07) 3345 4944 or 1300 887 738  
✉ [info@heat.com.au](mailto:info@heat.com.au) 🌐 [www.heat.com.au](http://www.heat.com.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Machine Operator (Non-metal products) (p 252).



## Heavy Vehicle Motor Mechanic

Also known as Agricultural Machinery Mechanic, Diesel Mechanic, Earth Moving Mechanic, Heavy Vehicle Mobile Equipment Mechanic, Heavy Vehicle Motor Technician, Heavy Vehicle Road Transport Mechanic, Mechanic, Motor Mechanic and Truck Mechanic.

A heavy vehicle motor mechanic repairs, maintains and tests heavy vehicles, other engines and related mechanical components.

Heavy vehicle motor mechanics may perform the following tasks:

- diagnose, overhaul, repair, tune, maintain and test diesel and petrol/gas-powered vehicles, including trucks, buses, bulldozers and other earthmoving equipment, tractors, stationary engines (e.g. generators, pumps, compressors and drilling rigs) and agricultural machinery
- detect mechanical and electrical faults by using instruments that check charging and starting circuitry, batteries, ignition and ignition timing, fuel injection systems and speed control, cylinder compression, engine condition, braking efficiency, and wheel balance and alignment
- repair and maintain the hydraulic components of diesel and petrol/gas engines that are used to power attachments such as hoists, booms, scrapers, buckets and augers
- use oxy, electric, TIG and MIG welding, hand fitting or machining processes to replace or repair faulty parts.

Heavy vehicle motor mechanics may have to work in country areas when repairing agricultural, earthmoving and heavy transport machinery.

### Personal Requirements

- enjoy practical and manual activities
- mechanical aptitude
- good at mathematics
- physically fit

### Education and Training

To become a heavy vehicle motor mechanic you usually have to complete an apprenticeship in Automotive Mechanical Technology. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Heavy vehicle motor mechanics are employed mainly by machinery dealers, some service stations, heavy vehicle repairers, road transport firms, bus companies and the minerals industry. Public and privatised authorities such as those concerned with defence, communications, energy supply, public works and transport also employ heavy vehicle motor mechanics. Some heavy vehicle motor mechanics may establish their own business.

### For Further Information

- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

### Related Jobs

Automotive Electrician (p 81); Automotive Parts Interpreter (p 82); Brake Mechanic (p 92); Engine Reconditioner (p 163); Light Vehicle Motor Mechanic (p 250); Radiator Repairer (p 344); Tyre Fitter and Repairer (p 421).

## Historian

Historians conduct research into past human activity including the history of countries, organisations, periods of time, buildings, cultural heritage, particular events, people, and ideas or issues.

Historians may perform the following tasks:

- examine, assess and interpret evidence of past events by consulting and studying the works of other historians and researchers, using sources of information such as archives, diaries, manuscripts, reports, statistics, artefacts, letters, newspapers, magazines and journals, and interviewing people
- organise the information, check it for accuracy, interpret details, suggest theories and make conclusions
- present findings and conclusions through reports, the media, journal articles, books, lectures and museum exhibitions
- act as an adviser or consultant to government, commercial and private organisations, societies, churches and individuals
- perform research and/or teach at institutions such as universities and schools.

Historians usually specialise in a particular geographical region or period of time and study aspects such as politics, culture, law, ideas, economics or sociology. Many history graduates find careers in other areas such as teaching, the media, the heritage industry, libraries, museums, archives, advertising, business and public administration.

### Personal Requirements

- an enquiring mind
- interested in human behaviour, society and politics
- interested in the lessons of the past
- a thorough approach to research and problem solving
- good written communication skills.

### Education and Training

To become a historian you usually have to study history at university, preferably to honours level. Most historians then undertake a masters or doctoral degree, where they conduct research and, in most instances, write a thesis in their chosen subject area. Subject areas are diverse and include ancient history, Asian history, women's history, Indigenous history, environmental history, economic history, medieval and renaissance history, public history, applied history, modern history and the history of nations.

To get into the degree courses you usually need to gain your VCE.

Degree courses majoring in history are widely available at universities in Victoria. Refer to the institution handbooks for further details. Most universities also offer postgraduate research degrees such as Master of Arts, Master of Philosophy or Doctor of Philosophy.

The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

### Additional Information

After obtaining a degree in historical studies, it may be possible to have your qualifications recognised by the Australian Council of Professional Historians Associations. For further information see the ACPHA website ([www.historians.org.au](http://www.historians.org.au)).

### Employment Opportunities

Historians are often self-employed, working on a contract basis on a succession of projects. Others are employed as lecturers, tutors and researchers by universities, research institutions, and public and private organisations.



History graduates often find work in administrative, research and policy roles where they can use their research and social data analysis skills. They may work in information management, public administration, journalism, museums and libraries. Some undertake further study to gain employment as teachers in secondary schools.

#### For Further Information

- Professional Historians Association (VIC) Inc ☎ (03) 9348 9188  
✉ mail@phavic.org.au 🌐 www.phavic.org.au

#### Related Jobs

Anthropologist (p 68); Archaeologist (p 69); Archivist (p 72); Cultural Heritage Officer (p 138); Museum Curator (p 283); Political Scientist (p 328); Sociologist (p 374); Teacher - Secondary (p 397); University Lecturer (p 422).

## Home Economist

Also known as Consumer Adviser, Family and Consumer Studies Professional, Community Health Officer, Food and Nutrition Consultant and Public Health Consultant.

Home economists teach, inform and advise government, industry and the community, in order to assist individuals to make better lifestyle choices.

Home economists may perform the following tasks:

- educate the community about aspects of everyday living such as family and interpersonal relationships, food and nutrition and leading balanced lifestyles
- teach independent living skills to school students, disabled or disadvantaged people
- assist people to take control of their health, develop healthy behaviours and make informed consumer decisions
- design, evaluate and promote products and services such as foods, household appliances or services for everyday living
- design and plan nutritious meals and assist people to prepare them.

#### Specialisations

**Community Health Home Economist** - undertakes a range of home economic activities in the public sectors such as providing information services on financial management, family relationships, child care, food and nutrition and household management. They may also manage food service operations such as canteens, aged-care centres and community food facilities and develop programs and policies for health and social services.

**Home Economics Teacher** - teaches students the skills required to understand and deal with a variety of issues in their personal, home, family and community roles. These skills are taught through a variety of topics such as food and nutrition, textiles and clothing, vocational skills and knowledge, and family and interpersonal relationships.

#### Personal Requirements

- consideration for others and sense of social justice
- good human resource management skills
- good oral and written communication skills
- aptitude for analysis and problem solving
- aptitude for design and creativity
- sensitivity in dealing with a wide range of people and issues.

#### Education and Training

To become a home economist you usually have to study science or health science at university with a major in food and nutrition. To get into the courses below you usually need to gain your VCE.

Prerequisite subjects, or assumed knowledge, in one or more of

English, biology, chemistry, higher level mathematics and physics are normally required. Contact the universities you are interested in for more information as requirements may change.

To become a home economics teacher usually requires the completion of a 4-year degree in education, with a teaching specialisation in home economics, or completion of a graduate course in education after completing a degree with a major in home economics. For more information on education and training for teachers see the entry for Teacher - Secondary.

#### Degree Courses

##### Deakin University - Burwood Campus:

Bachelor of Food Science and Nutrition, 3 years full time or equivalent

Bachelor of Health Sciences, majoring in food science or nutrition, 3 years full time or equivalent

##### La Trobe University - Bundoora Campus:

Bachelor of Human Nutrition, 3 years full time

##### Monash University - Clayton Campus:

Bachelor of Nutrition and Dietetics, 4 years full time

##### RMIT University - City Campus:

Bachelor of Science (Applied Sciences), majoring in food science and nutrition or food science and technology, 3 years full time

##### University of Melbourne - Parkville Campus:

Bachelor of Science, majoring in food science, 3 years full time or equivalent

##### Victoria University - St Albans Campus:

Bachelor of Science (Nutritional Therapy), 3 years full time or equivalent

##### Victoria University - St Albans and Werribee Campuses:

Bachelor of Science (Nutrition, Food and Health Sciences), 3 years full time or equivalent

#### Additional Information

Graduates may be eligible for membership of the Home Economics Institute of Australia and Home Economics Victoria.

#### Employment Opportunities

Most home economists find employment as home economics teachers with the state education department or non-government schools.

Home economists may also work in a range of community health organisations such as government health departments, local councils and health promotion agencies.

#### For Further Information

- Home Economics Institute of Australia (National Office)  
☎ 1800 446 841 ✉ heia@heia.com.au 🌐 www.heia.com.au
- Home Economics Institute of Australia (VIC) ☎ (03) 9888 2757 or 1800 446 841 (FREECALL) ✉ heia@heia.com.au  
🌐 www.heia.com.au/heia
- Home Economics Victoria ☎ (03) 9888 2240  
✉ office@hev.com.au 🌐 www.homeeconomics.com.au

#### Related Jobs

Consumer Scientist (p 128); Dietitian (p 147); Food Technologist (p 189); Health Promotion Officer (p 210); Nutritionist (p 298); Teacher - Secondary (p 397).

## Home Improvement Installer

Home improvement installers put in place home improvements such as awnings, curtains, blinds, flyscreens, garage doors, exterior cladding, shower screens and prefabricated windows and doors.

H



Home improvement installers may perform the following tasks:

- check specifications and work sites to plan installations
- measure and mark locations for frames, brackets or hinges
- drill holes in wood, brick, stone or fibrous structures
- bolt, screw or nail frame fittings into place
- fit frames and home improvements to structures and fasten them into position
- attach and adjust mechanical fittings, such as cranks, locks and pull-cords
- install flashing and weatherproofing to fittings such as awnings, shower screens and prefabricated windows and doors
- provide quotes for home improvements.

#### Personal Requirements

- enjoy practical work
- good communication skills
- strong personal drive
- able to think creatively and solve problems
- able to work efficiently
- able to stick to deadlines and budget.

#### Education and Training

You can work as a home improvement installer without formal qualifications, but employers generally require Year 10. You will probably get some informal training on the job. Skills are usually developed through practice and experience. You will improve your chances of employment by undertaking some associated formal training in construction work.

Costs, duration and entry requirements may vary between courses. See the online entry for Home Improvement Installer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a home improvement installer through an apprenticeship or traineeship from the Construction, Plumbing and Services Integrated Framework. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships and traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and Services Integrated Framework that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most people in this occupation are employed in the construction, manufacturing, or wholesale and retail service or supply industries, or work as self-employed contractors.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
🌐 [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Housing Industry Association (VIC) ☎ (03) 9280 8200  
✉ [vic\\_enquiry@hia.com.au](mailto:vic_enquiry@hia.com.au) 🌐 <http://hia.com.au>

#### Related Jobs

Carpenter (p 105); Handyperson (p 209).

## Horse Manager

Also known as Horse Breeder.

Horse managers are responsible for the housing, breeding, health and training of horses within a horse stable-and-stud system.

Horse managers may perform the following tasks:

- consult with veterinarians and animal nutritionists
- maintain breeding, dietary and other records
- select and arrange purchase of bloodstock (thoroughbred horses)
- study records of bloodlines, physical appearance and performance characteristics of horses to work out breeding combinations before selecting horses suitable for mating
- mate mares with selected stallions
- assist with foaling
- train apprentice jockeys and stablehands
- make sure that horses are exercised
- supervise the training of horses for competitions
- supervise and manage equipment, facilities, pastures and staff
- carry out administrative tasks such as marketing, budgeting, planning and management of physical and financial resources.

Horse managers may specialise in the study and practice of riding and horsemanship (equitation), horse handling, or instruction skills and managing riding schools for people at different levels of capability. Others manage breeding programs.

#### Personal Requirements

- enjoy working with horses
- good organisation and management skills.

#### Education and Training

You can work as a horse manager without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications or extensive experience in the horse industry.

Entry to the certificate courses below usually requires at least Year 10. Entry to the diploma and advanced diploma courses usually requires completion of Year 12. To get into the degree course you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of biology, chemistry and mathematics are normally required. Applicants may also be required to attend an interview. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

You can also become a horse manager through a traineeship in Agriculture (Horse Breeding). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Box Hill Institute of TAFE - Elgar Campus:*

Certificate III in Agriculture (Horse Breeding)

*Goulburn Ovens Institute of TAFE - Wangaratta Campus:*

Certificate II in Agriculture (Horse Breeding)

*Northern Melbourne Institute of TAFE - Epping Campus:*

Certificate IV in Agriculture (Horse Breeding) (entry via certificate III or relevant experience)

#### Diploma Courses

*Goulburn Ovens Institute of TAFE - Wangaratta Campus:*

Diploma of Equine Stud Management



### South West Institute of TAFE - Glenormiston Campus:

Advanced Diploma of Horse Management

### Degree Courses

### Northern Melbourne Institute of TAFE - Epping Campus:

Bachelor of Equine Studies, 3 years full time

### Employment Opportunities

Horse managers are employed in horse-breeding stables (stud farms) and in riding schools for training or recreational purposes. They also work in other areas of the industry, such as racing administration, bloodstock sales and insurance, international horse transport and veterinary support.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200

✉ reception@agrifoodskills.net.au

🌐 <http://agrifoodskills.net.au>

- Thoroughbred Breeders Australia 🌐 [www.tbaustralia.com](http://www.tbaustralia.com)

- Racing Victoria Ltd ☎ (03) 9258 4258

✉ information@racingvictoria.net.au

🌐 [www.racingvictoria.net.au](http://www.racingvictoria.net.au)

### Related Jobs

Farrier (p 173); Horse Trainer (p 215); Jockey (p 238); Stablehand (p 382).

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## Horse Trainer

Horse trainers supervise the preparation of horses for racing and trotting competitions, advise and consult with owners and instruct stable staff and jockeys/drivers.

Horse trainers may perform the following tasks:

- feed, groom and exercise horses
- bridle and saddle horses
- accustom horses to reins and harnesses
- harness and hitch harness racing horses and teach them to pull sulkies (two-wheeled carriages)
- teach apprentice jockeys, drivers and riders horse riding techniques and horse handling methods
- supervise and direct stable staff, jockeys, sulky drivers and other workers
- plan, supervise and carry out training programs for horses
- plan and select race programs to achieve the best placing for a horse
- attend race meetings or other horse-related events
- keep accurate records of accounts and use correct credit procedures.

Horse trainers usually specialise in thoroughbreds for galloping races, standardbreds for pacing or trotting races or performance horses for events, show jumping and dressage.

Horse trainers may be required to work long hours. Much of their work is carried out very early in the morning and they may continue to work all day.

### Personal Requirements

- a keen interest in horses
- patience
- enjoy outdoor work
- good communication skills.

### Education and Training

You can work as a horse trainer without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have relevant qualifications.

Entry to the certificate courses below usually requires year 10. Entry to the diploma courses below usually requires completion of the Certificate IV. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a horse trainer through a traineeship in Racing (Trackrider/Racehorse Trainer). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

TAFE Victoria - various locations:

Cert III in Racing (Advanced Stablehand)

Cert IV in Racing (Racehorse Trainer) (entry via certificate III)

### Diploma Courses

East Gippsland Institute of TAFE - Farmtech Education Centre Campus:

Diploma of Racing (Racehorse Trainer)

Goulburn Ovens Institute of TAFE - Wangaratta Campus:

Diploma of Racing (Racehorse Trainer)

Northern Melbourne Institute of TAFE - Epping Campus:

Diploma of Racing (Racehorse Trainer)

University of Ballarat (TAFE Division) - Horsham and SMB, Ballarat Campuses:

Diploma of Racing (Racehorse Trainer)

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Racing Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Licensing is required for both racehorse and harness racing trainers. Contact Racing Victoria or Harness Racing Victoria for further information.

### Employment Opportunities

Horse trainers are mainly employed in the horse racing industry. They work in horse studs, racing and training stables and riding schools. Some work as freelance coaches and trainers, breaking in, schooling and re-training horses from the racetrack for careers in show jumping, events and dressage.

In the larger stables, and with experience, horse trainers may progress to supervisory and managerial positions.

### For Further Information

- Harness Racing Victoria ☎ (03) 8378 0200 ✉ [info@hrv.org.au](mailto:info@hrv.org.au)

🌐 [www.harness.org.au/vic.cfm](http://www.harness.org.au/vic.cfm)

- Racing Victoria Ltd ☎ (03) 9258 4258

✉ [information@racingvictoria.net.au](mailto:information@racingvictoria.net.au)

🌐 [www.racingvictoria.net.au](http://www.racingvictoria.net.au)



### Related Jobs

Animal Attendant (p 66); Animal Technician (p 67); Dog Trainer (p 151); Farrier (p 173); Guide Dog Instructor (p 208); Horse Manager (p 214); Jockey (p 238); Stablehand (p 382).

## Horticultural Assistant

Also known as Gardener's Assistant, Garden Labourer and Nursery Assistant.

Horticultural assistants undertake a range of tasks to do with the cultivation, growing, harvesting and maintenance of trees, plants and gardens.

Horticultural assistants may perform the following tasks:

- prepare new garden sites, plots and soils using hand tools or machines
- load, unload and move gardening supplies and equipment
- assist in planting and transplanting seeds, bulbs, flowers, shrubs, trees and lawns
- clean gardens and remove rubbish
- maintain plants and gardens by watering, weeding and mowing lawns
- adjust mist irrigation systems, shade and ventilation in a nursery, garden or greenhouse
- prepare and package plants for sale or transport
- erect barriers, fences or structures in gardens.

With experience and further training, it is possible to gain promotion to horticultural tradesperson positions.

Horticultural assistants usually work under the supervision of a horticultural tradesperson. They work outside and in greenhouses, often in a team.

### Personal Requirements

- able to undertake manual and sometimes heavy work
- observant and methodical
- good communication skills
- enjoy outdoor work
- enjoy working in teams.

### Education and Training

You can work as a horticultural assistant without formal qualifications. Training is usually provided on the job, although there are a number of courses available that may assist you in gaining employment.

You can also enter this occupation through a traineeship in Horticulture (various specialisations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Costs, duration and entry requirements may vary between courses. See the online entry for Horticultural Assistant at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Amenity Horticulture Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Horticultural assistants are mainly employed by retail and wholesale nurseries, plantation timber companies, local governments, parks authorities and private gardening and landscaping companies to

assist professionals. The popularity of this occupation makes competition strong for entry positions.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Australian Institute of Horticulture Inc ☎ (02) 8001 6198  
✉ [info@aih.org.au](mailto:info@aih.org.au) 🌐 [www.aih.org.au](http://www.aih.org.au)
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)

### Related Jobs

Forest Worker (p 193); Handyperson (p 209); Horticultural Tradesperson (p 216).

## Unearth your potential in Horticulture

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## Horticultural Tradesperson

Also known as Nursery Technician.

Horticultural tradespersons maintain plants and planted areas, construct horticultural features, and apply treatments to improve plant growth and control pests.

Horticultural tradespersons may perform the following tasks:

- identify and correct soil deficiencies
- identify and treat pests and diseases affecting plants
- prepare fields, garden beds or lawn areas by cultivating soil and adding fertilisers and compost
- use growth regulators and other chemicals
- read landscape plans and construct rockeries, paths or ponds
- plant and transplant flowers, shrubs, trees and lawns
- maintain gardens by fertilising, trimming and making sure that plants are receiving adequate water
- prune trees and hedges to promote the health and positive appearance of plants
- thin out, hoe, irrigate and fertilise crops
- maintain lawn and grass areas using machinery, fertilisers and chemicals
- service equipment such as tools, lawn mowers and heavy machinery
- operate and install irrigation and drainage systems
- plan and supervise the daily activities of other workers
- develop long-term plans, set budgets and manage the financial aspects of the organisation or business.

Horticultural tradespersons usually work outdoors and in all kinds of weather. Some of the work is physically demanding as it involves bending and lifting, and the use of machinery such as tractors, rollers and edging machines. Protective clothing must be used when handling fertilisers and pesticides, and to prevent injury while using machinery.

### Specialisations

**Arboriculture Worker** - cares for and maintains trees in urban environments. The work may include tree climbing using ropes and a harness, or operating from elevated platforms. Senior workers, sometimes called tree surgeons, provide specialist advice on tree evaluation, assessment and treatment.



**Floriculturist** - produces fresh and dried flowers and foliage for wholesale, flower markets, florists and retail outlets, and increasingly for overseas export. Some flower farms also grow flowers in open fields for their essential oils.

**Gardener** - plants and cares for trees, lawns, shrubs and flower beds in areas around public and private institutions, city squares, parks and gardens, playing fields, golf courses and bowling greens, as well as private homes.

**Greenkeeper** - is also known as groundsperson or turf keeper. They prepare, establish and manage fine turf, grassed areas and synthetic surfaces used for sport. They may also do domestic and commercial mowing and lawn maintenance operations, and work on commercial turf farms.

**Landscape Gardener** - designs and constructs garden landscapes or renovates existing gardens. They work in a variety of sites, including public and private parks and gardens, to create a landscape that is aesthetically pleasing as well as functional.

**Nursery Worker** - grows and sells plants. They can work in either retail or wholesale nurseries, and may specialise in areas such as native plants, advanced trees or flowers.

#### Personal Requirements

- enjoy practical and mechanical activities
- able to undertake manual and heavy work
- able to work safely with chemicals and machinery
- able to work for long hours
- able to work outdoors in all sorts of weather conditions.

#### Education and Training

To become a horticultural tradesperson you usually have to complete a traineeship in Horticulture (various specialisations). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Amenity Horticulture, Rural Production or Conservation and Land Management Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

The horticultural sector is one of the most important primary industries in Australia. Opportunities are developing in service areas such as marketing, finance and international trade.

Fresh and dried fruit and flowers are significant and growing export sectors. Landscape gardening and turf management are two strongly growing areas linked with increased residential and commercial construction and the development of sporting facilities.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Australian Institute of Horticulture Inc ☎ (02) 8001 6198  
✉ [info@aih.org.au](mailto:info@aih.org.au) 🌐 [www.aih.org.au](http://www.aih.org.au)
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)
- Nursery and Garden Industry Victoria ☎ (03) 9576 0599  
✉ [careers@ngia.com.au](mailto:careers@ngia.com.au) 🌐 [www.greenlifecareers.com.au](http://www.greenlifecareers.com.au)

#### Related Jobs

Agricultural Technical Officer (p 58); Beekeeper (p 86); Farm Hand (p 171); Farmer/Farm Manager (p 172); Florist (p 187); Forest Worker (p 193); Fruit and Vegetable Picker (p 195); Horticultural Assistant (p 216); Landcare Worker (p 241); Timber Harvesting Operator (p 407).

## Unearth your potential in Horticulture

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### Hospital Administrator

Also known as Health/Hospital Executive.

Hospital administrators plan, direct and coordinate health and administrative services provided by hospitals, community health services and other health service organisations.

Hospital administrators may perform the following tasks:

- prepare annual funding estimates, forecasting the demand for services and allocating budgets
- improve and maintain delivery of the health service by planning the services and accounting for the cost of care and the distribution of staff
- represent the health service by attending meetings, seminars and functions
- talk to members of the community, local interest groups, local politicians, industrial associations and the media in relation to the organisation and/or services provided
- act as liaison officer between the governing body of the health organisation and health authorities
- manage staff in areas such as cleaning, safety, maintenance, records and accounts
- take part in identifying problems and needs within the health service by attending staff meetings
- liaise with medical and nursing staff
- interpret industrial awards and other regulations concerning staff employment contracts
- develop and put in place new policies and procedures
- participate in the promotion of occupational health and safety management within the organisation.

#### Personal Requirements

- able to analyse and solve problems
- organisational ability
- good communication and interpersonal skills.

#### Education and Training

To become a hospital administrator you usually have to study health management at university. You may also consider business management or business administration with a health related major. Entry to this occupation may be improved if you have work experience in the health industry.

To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.



Degrees in these areas are widely available at universities in Victoria. Contact your preferred institution for further details.

#### Employment Opportunities

Hospital administrators are employed by public and private hospitals, community health centres, nursing homes and other health organisations. Some are employed by health authorities or government departments. They may also work as self-employed consultants.

Demand for this occupation is largely influenced by government funding, and competition for available positions is strong. There is an increasing demand for administrators with postgraduate qualifications and good financial and management skills.

#### For Further Information

- Australian College of Health Service Management  
☎ (02) 9878 5088 ✉ membership@achsm.org.au  
🌐 www.achsm.org.au

#### Related Jobs

Health Information Manager (p 210); Human Resources Officer (p 219); Medical Practitioner (p 268); Office Administrator (p 300); Veterinarian (p 428).

## Hotel and Motel Front Office Attendant

Also known as Hotel Concierge.

Hotel and motel front office attendants look after the needs of guests on arrival and during their stay in a hotel or motel.

Front office attendants may perform the following tasks:

- receive reservations for accommodation from clients, either in person or by telephone, fax or email
- take guests' details and allocate their rooms
- talk to transport carriers (e.g. airlines, bus companies, rental car agencies) to make travel arrangements for guests and to find lost luggage
- inform guests about the hotel/motel's facilities, policies and procedures
- provide tourist information to guests
- make reservations for sightseeing tours, restaurants, the cinema and live entertainment
- deal with enquiries and requests from guests
- take messages for guests
- calculate guests' bills and issue receipts upon payment
- arrange accommodation for guests travelling to other destinations
- perform cashier duties, cash travellers cheques and exchange foreign currency
- place guests' possessions in a safe if requested
- coordinate the cleaning of guests' personal laundry, shoe shining and room service deliveries
- follow in-house procedures to help ensure the security of guests and employees
- perform general secretarial duties, such as preparing correspondence and attending to a switchboard.

In a small or medium-sized hotel, all of the above duties may be carried out by one person. However, in an international standard hotel, several attendants may be employed. Each attendant is allocated a set of specific duties to perform (e.g. one may attend to guest reception, another may be responsible for the switchboard, while another works as an information officer).

Hotel and motel front office attendants usually work shifts including evenings, weekends and public holidays.

#### Specialisation

**Hotel and Motel Manager** - plans, supervises and controls the operations of a hotel or motel. They have a high level of contact with the public, and may have to deal with difficult guests and be on call if major problems arise.

#### Personal Requirements

- enjoy working with people
- friendly, helpful and patient
- able to assist guests with a limited understanding of English
- good communication and interpersonal skills
- able to record information accurately
- able to work as part of a team
- able to project a professional manner at all times
- flexible and resourceful
- able to stay calm in difficult situations.

#### Education and Training

You can work as a hotel and motel front office attendant without formal qualifications. You will probably get some informal training on the job.

You can also become a hotel and motel front office attendant through a traineeship in Hospitality. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Experience in word processing and operating office machinery such as switchboards is desirable. The ability to speak a second language is an advantage if working in an international hotel.

#### Employment Opportunities

Hotel and motel front office attendants are employed by hotels, motels, resorts, guesthouses and hostels throughout the country. They may work in privately owned hotels or motels, or in companies that operate a chain of establishments.

#### For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ aha@aha.org.au 🌐 www.aha.org.au
- Service Skills Australia 🌐 www.serviceskills.com.au
- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au

#### Related Jobs

Caravan Park Attendant (p 103); Porter - Hotel/Motel (p 328); Receptionist (p 346).

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## House Parent

House parents are concerned with all the tasks relating to personal care, boarding accommodation, meals, study, recreation and weekend activities of children in a residential child care establishment. They usually live in or near the boarding establishment.

House parents may perform the following tasks:

- ensure good behaviour of the children
- supervise and arrange activities that increase intellectual, physical, social and spiritual development
- make sure living and hygiene standards are maintained
- make sure students are attending classes
- lend a sympathetic ear to children with problems or provide counselling services
- perform minor domestic duties
- accompany students on weekend outings.

### Specialisation

**Boarding School Supervisor** - usually provides a similar service to that of house parents, and operates from a school boarding house. They provide accommodation facilities for students.

### Personal Requirements

- concern for the wellbeing of young people
- understanding of student needs and cultural differences
- sense of responsibility
- good leadership skills
- good organisational skills
- able to work closely with others in a community setting
- good health.

### Education and Training

You can work as a house parent without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job.

### Additional Information

To work with minors in Victoria, you must obtain a Working with Children Check issued by the Department of Justice. You may also be required to complete a professional development course relevant to the care of adolescents.

### Employment Opportunities

Vacancies for house parents and boarding school supervisors occur from time to time in government and independent schools, colleges and hostels. These may be either single-sex or coeducational.

Some positions are full time and paid; others are part time and unpaid with accommodation and meals included. Boarding positions would suit university students or a person employed in another job.

### For Further Information

- Australian Boarding Schools Association Ltd ☎ (07) 3863 4885  
✉ [absa@boarding.org.au](mailto:absa@boarding.org.au) 🌐 [www.boarding.org.au](http://www.boarding.org.au)
- Department of Education and Early Childhood Development  
☎ (03) 9637 2376 ✉ [newton.mark.m@edumail.vic.gov.au](mailto:newton.mark.m@edumail.vic.gov.au)  
🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)

### Related Jobs

Family Day Carer (p 171); Welfare Worker (p 436); Youth Worker (p 442).

## Human Resources Officer

Also known as Personnel Officer and Personnel Consultant.

Human resources officers provide administration services for the recruitment and employment of staff.

Human resources officers may perform the following tasks:

- determine staffing numbers, skills and needs to meet the organisation's objectives
- analyse the skills and qualities required for each particular job and develop job descriptions and duty statements
- advertise staff vacancies, assess applications, interview applicants, give selection tests, prepare reports and make recommendations to management about staff appointments
- maintain the personal records of employees on matters such as wages, superannuation, leave and training, and prepare associated management reports
- arrange and conduct staff training
- use a number of management information systems to record, maintain, plan and manage the organisation's human resources
- provide advice and information to management and employees on personnel policies and procedures, including equal opportunity, anti-discrimination and occupational health and safety programs
- advise employees on work matters, career development, personal problems and industrial matters
- organise employee welfare services such as canteens, first aid, superannuation and social activities
- take part in enterprise bargaining talks where employees, management and unions discuss the development of specific work arrangements and conditions (e.g. pay and hours of work)
- help put in place organisational changes (e.g. those following from industrial relations legislation, revised job classification structures or technological changes)
- take part in strategic management.

In small organisations, human resources officers are usually responsible for all staffing matters. In large organisations they may specialise in a particular area, such as recruitment, wages and entitlements or staff training.

### Personal Requirements

- good planning, organisational, analytical and decision-making skills
- good oral and written communication skills
- confidentiality, tact and discretion when dealing with people.

### Education and Training

You can work as a human resources officer without formal qualifications, but employers usually prefer you to gain your VCE. However, entry to this occupation may be improved if you have qualifications in human resources. Relevant courses are available at the certificate, diploma and degree levels. A degree in related areas such as industrial relations, psychology, management, commerce or economics may also be useful in gaining employment.

Entry to the certificate IV courses below usually requires completion of a certificate III in business. Entry to the diploma courses usually requires completion of a certificate IV. Entry to the advanced diploma courses usually requires completion of a diploma. To get into the degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

The Recruitment and Consulting Services Association offers courses at certificate and diploma levels. The Australian Human Resources Institute also runs tertiary courses. Contact the institutions for further information.



You can also become a human resources officer through a traineeship in human resources. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Most universities in Victoria offer degrees in business or commerce with a major in human resource management. Contact your preferred institution for further details.

#### Certificate Courses

**TAFE Victoria** - various locations:

Certificate IV in Human Resources

#### Diploma Courses

**TAFE Victoria** - various locations:

Diploma of Human Resources Management

Advanced Diploma of Management - Human Resources

#### Employment Opportunities

Human resources officers are employed by organisations such as banks, insurance companies, hospitals, manufacturing firms, airline and shipping companies, large retail stores, and federal and state government departments and agencies.

Some people may establish their own businesses as human resources/personnel consultants.

#### For Further Information

- Australian Human Resources Institute (National Office)  
☎ (03) 9918 9200 ✉ reception@ahri.com.au  
🌐 www.ahri.com.au
- RCSA Australia and New Zealand ☎ (03) 9663 0555 or  
1300 727 504 (FREECALL) ✉ info@rcsa.com.au  
🌐 www.rcsa.com.au

#### Related Jobs

Hospital Administrator (p 217); Industrial Relations Officer (p 226); Management Consultant (p 253); Occupational Health and Safety Officer (p 298); Public Servant - Australian Public Service (p 340); Recruitment Consultant (p 349); Trade Union Official (p 411); Training Officer (p 414).

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## Hydrographer

Also known as Field Hydrologist and Hydrometric Officer.

Hydrographers measure, describe and map the earth's surface waters (including oceans, seas, rivers, lakes, estuaries and the water in channels and pipes). They are also involved in collecting and analysing information on surface and below-surface flow and quality.

Hydrographers may perform the following tasks:

- select, install, maintain and repair instruments which monitor water levels, rainfall, sediments, etc.
- design, construct, install and maintain civil works associated with water-related projects and activities (including dams, weirs, bridges, irrigation projects, water supply schemes, flood protection works, warning services and marine facilities)

- compile navigational charts and other data for the safe navigation of Australian waters
- collect sample data at various locations to confirm data gathered by automatic monitors
- use underwater acoustic equipment to establish and monitor tidal data, outline coastlines, measure seabed depths, and search for underwater obstacles in oceans or lakes
- prepare data for use by other professionals
- prepare reports on sites, as well as on data collection and quality.

Hydrographers work in offices and in the field (on land, underground, or in ships, boats or planes).

#### Specialisations

**Land Hydrographer** - is mainly involved in the measurement, analysis, and maintenance of the quantity and quality of water in rivers, lakes, stormwater and sewage. Using this information, they may plan and develop strategies for water conservation and the improvement of water quality.

**Ocean Hydrographer** - is involved in the mapping of oceans and seas. They may examine and develop strategies for addressing such issues as water quality and related environmental impacts.

#### Personal Requirements

- able to work accurately and systematically
- aptitude for physics, mathematics and statistics
- able to work independently or as part of a team
- able to work in confined spaces and at heights
- able to swim
- a current divers licence may also be required.

#### Education and Training

To become a hydrographer you usually have to study hydrography or a related subject. The certificate course listed below is available by distance education, although your employment prospects will be improved if you hold a degree with a major in marine or water science. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, physics, chemistry and higher level mathematics are normally required. Contact the institutions you are interested in for more information as requirements may change.

#### Certificate Courses

**TAFE NSW, OTEN** - Distance Education:

Certificate IV in Hydrography

#### Degree Courses

**Deakin University - Warrnambool Campus:**

Bachelor of Environmental Science (Freshwater Biology and Management), majoring in hydrology, 3 years full time or equivalent

**Monash University - Clayton Campus:**

Bachelor of Environmental Engineering, majoring in hydrology, 4 years full time or equivalent

**University of Melbourne - Parkville Campus:**

Bachelor of Science, majoring in hydrology or ocean science, 3 years full time or equivalent

#### Additional Information

It is possible to gain employment as a cadet with a government department without the degrees listed above if you have several years of relevant work experience.

The Surveying and Spatial Sciences Institute (SSSI) is the accrediting body for hydrographers in Australia. Hydrography is a specialised field and for SSSI accreditation, you usually have to combine a relevant degree course with field experience.



## Employment Opportunities

The major employers of hydrographers include government departments, statutory authorities, consulting firms in hydrography or environmental engineering and the Royal Australian Navy (RAN). Competition for entry positions is very strong. The number of assistant or trainee positions that are available varies each year.

The RAN employs hydrographers through Defence Force Recruiting and has developed hydrographer career pathways for seaman officers and junior sailors.

### For Further Information

- Australian Hydrographers Association ☎ [www.aha.net.au](http://www.aha.net.au)
- Australian Hydrographic Service ☎ (02) 4223 6500  
☎ [www.hydro.gov.au](http://www.hydro.gov.au)
- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) ☎ [www.defencejobs.gov.au](http://www.defencejobs.gov.au)
- Department of Sustainability and Environment ☎ 13 61 86  
✉ [customer.service@dse.vic.gov.au](mailto:customer.service@dse.vic.gov.au) ☎ [www.dse.vic.gov.au](http://www.dse.vic.gov.au)
- What is Surveying? ✉ [trysurveying@alifewithoutlimits.com.au](mailto:trysurveying@alifewithoutlimits.com.au)  
☎ [www.alifewithoutlimits.com.au](http://www.alifewithoutlimits.com.au)

### Related Jobs

Cartographer (p 106); Environmental Scientist (p 169); Geographic Information Systems Officer (p 201); Geologist (p 202); Geoscience Technician (p 205); Surveyor (p 389); Water Services Officer (p 433).

## Illustrator

Illustrators create drawings and designs for books, magazines, advertisements, films, television and multimedia.

Illustrators work on paper, celluloid, and two-dimensional (2D) and three-dimensional (3D) models. They may use a combination of traditional and computer-based techniques, or work on screen only.

Illustrators may perform the following tasks:

- study the project brief (instructions) and select an appropriate style, technique and medium to use
- research the topic by looking at photographs, artworks, advertisements and books, and by observing people, animals and plants
- prepare sketches, layouts and storyboards to try out different ideas
- create illustrations using charcoal, pen, ink, paint, photography and computer graphics software
- create and manipulate models using clay and other materials or 2D and 3D computer graphics to create an animated sequence
- discuss the project with clients and the production team, making changes as requested.

Illustrators can specialise in illustrations for children's books, scientific work, technical manuals, fashion, websites or product packaging. Many work as freelancers. When a deadline has to be met, they may have to work long hours.

### Specialisation

**Animator** - creates models or draws characters and objects in a sequence of different positions to give the illusion of movement. They synchronise lip movements with words, and actions with music and sound effects. Animators can use a range of traditional and digital techniques, including cell animation, claymation, motion graphics, rendering and morphing.

## Personal Requirements

- high level of drawing skill
- artistic and design flair
- able to work to the client brief (instructions)
- a feeling for movement and timing
- aptitude for working with computers.

## Education and Training

You can work as an illustrator without formal qualifications. Skills are usually developed through practice and experience. However, entry to this occupation may be improved if you have qualifications in animation, graphic design, multimedia or visual arts.

Entry to certificate courses usually requires Year 10. To get into diploma and degree courses you usually need to gain your VCE/Year 12. Applicants may also be required to submit a written application, complete a design test, attend an interview and/or submit a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information as requirements may change.

Relevant diploma and degree courses are widely available in Victoria. Check institution handbooks for details.

Costs, duration and entry requirements may vary between courses. See the online entry for Illustrator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

## Employment Opportunities

Most work is in the eastern states, with book and magazine publishers, advertising agencies and film production studios. It is a highly competitive industry.

Computer-based techniques for illustration and animation have taken over from traditional techniques to a large extent, so having strong skills in both these areas is very important.

Some animators work freelance, and may develop their own characters and stories to produce features to sell to television or film distributors. Others work in commercial film or animation studios as part of a team, performing production tasks such as colouring drawings or painting backgrounds. Much of the work is concentrated in a small number of animation studios in Sydney.

Job opportunities depend on the level of government, private and corporate funding for projects that require illustration. At the individual level, finding employment depends on the quality of the individual's work and their reputation in the industry.

### For Further Information

- Australian Graphic Design Association (National Office)  
☎ (08) 8411 3888 ✉ [secretariat@agda.com.au](mailto:secretariat@agda.com.au)  
☎ [www.agda.com.au](http://www.agda.com.au)
- Australian Society of Authors (National) ☎ (02) 9318 0877  
✉ [asa@asauthors.org](mailto:asa@asauthors.org) ☎ [www.asauthors.org](http://www.asauthors.org)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Artist (p 75); Desktop Publisher (p 145); Games Developer (p 198); Graphic Designer (p 206); Publisher (p 342); Writer (p 441).

## Importer and Exporter

Importers and exporters sell and buy goods produced in Australia for export to overseas markets, or procure products made overseas for import to Australian markets, including raw materials, foodstuffs and manufactured goods.



Importers and exporters may perform the following tasks:

- supervise and coordinate the marketing activities of overseas distributors/agents and assist in administrative, sales and marketing functions
- investigate and assess overseas demand for goods produced in Australia, or local demand for goods produced overseas
- research and comply with legal requirements affecting import and export of goods to and from Australia
- discuss orders and arrange for the production of goods with suppliers and distributors/agents
- arrange the shipment of goods, ensuring that all customs barrier control procedures and other documentation requirements are satisfied
- arrange payment for goods, making sure these payments meet financial regulations in Australia and overseas
- talk to freight forwarders and customs brokers, who make freight and space bookings with airline or shipping companies and arrange for the movement of cargo from airports and wharves
- keep an eye on the performance of the business and prepare financial statements and report on import-export operations.

#### Specialisations

**Import/Export (Administration) Manager** - is usually based in the company's head office. The main role is the supervision of the receipt, recording and progress of import/export orders through the company in an efficient manner. This involves liaison with company departments, customers and outside organisations.

**Import/Export (Distribution) Manager** - coordinates the movement of goods in and out of the country, ensures compliance with customs barrier control matters, and negotiates freight rates and delivery schedules.

**Import/Export (Sales/Marketing) Manager** - travels overseas to obtain orders or source supplies from overseas customers, attends tradeshow and exhibitions, and demonstrates products or acquires product knowledge.

#### Personal Requirements

- good communication and negotiation skills
- commercially astute
- research and administrative skills
- good at basic mathematics
- ability to speak one or more foreign languages is highly desirable (a considerable amount of overseas travel may be required).

#### Education and Training

You can work as an importer and exporter without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications in international trade, business or management.

Entry to the certificate course below usually requires Year 10. Entry to the diploma and advanced diploma courses usually requires completion of Year 12. To get into the degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees in international trade, business or management. Contact your preferred institution for full details.

#### Certificate Courses

**Box Hill Institute of TAFE - Elgar Campus:**

- Certificate III in International Trade

**Holmesglen Institute of TAFE - Chadstone Campus:**

- Certificate III in International Trade

**Northern Melbourne Institute of TAFE - Preston Campus:**

- Certificate III in International Trade

**Sunraysia Institute of TAFE - Mildura TAFE:**

- Certificate III in International Trade

**TAFE Victoria - various locations:**

- Certificate IV in International Trade (entry via Certificate III in International Trade)

#### Diploma Courses

**Australian Institute of Export:**

- Advanced Diploma of International Business Management

**TAFE Victoria - various locations:**

- Diploma of International Business (entry via Certificate IV in International Trade)
- Advanced Diploma of International Business

#### Additional Information

With relevant work experience, graduates may be eligible for membership of the Australian Institute of Export.

#### Employment Opportunities

Importers and exporters are mainly self-employed in small businesses, although some may work as employees in larger businesses. Staff with specialist import/export knowledge and skills are also employed by banks and government departments. People with relevant formal qualifications have good opportunities for employment. New entrants usually commence in the distribution or sales area of the firm. Training varies according to the size of the firm and the products traded. Most people need five years of experience in the less complex areas such as distribution or sales to develop basic knowledge and skills.

#### For Further Information

- Australian Institute of Export ☎ (02) 8243 7400  
✉ [info@aieux.com.au](mailto:info@aieux.com.au) 🌐 [www.aieux.com.au](http://www.aieux.com.au)

#### Related Jobs

Customs Broker (p 139); Retail Buyer (p 354); Sales Representative (p 359).

### Indigenous Community Liaison Officer

Also known as Aboriginal and Torres Strait Islander Community Liaison Officer, Aboriginal Community Constable, Aboriginal Community Liaison Officer, Aboriginal Community Police Officer, Police Aboriginal Liaison Officer, Police Liaison Officer and Community Constable.

Indigenous community liaison officers liaise with Indigenous communities and the state or territory police forces in order to establish and maintain positive relationships.

Indigenous community liaison officers may perform the following tasks:

- establish good communication between police and local Indigenous communities
- help work out disputes involving police and Indigenous communities
- advise and educate police officers on cross-cultural awareness
- advise police on potential crime and disorder areas and suggest ways to stop crime and misbehaviour



- improve community knowledge about policing services and law and order issues
- provide assistance to relatives visiting Indigenous prisoners
- go to interviews that involve Indigenous juveniles
- use appropriate police powers and prepare prosecution briefs.

Indigenous community liaison officers usually have limited police powers, although in certain circumstances they may assist police officers with law enforcement tasks such as arrest, search and detainment. In Tasmania and WA, however, there is no separate Indigenous community liaison officer program. Instead, fully sworn members of the police force, who have specialised in the liaison role, perform this function.

Indigenous community liaison officers are required to work shifts, including weekends and public holidays, and may serve in urban and remote communities.

#### Personal Requirements

- enjoy working with people
- good communication and negotiation skills
- of Aboriginal or Torres Strait Islander descent
- of sound character
- acceptable traffic/criminal record
- medically fit.

#### Education and Training

Indigenous community liaison officers are known as Aboriginal Community Liaison Officers (ACLO) or Police Aboriginal Liaison Officers (PALO) in Victoria.

You can work as an Aboriginal Community Liaison Officer without any formal qualifications. The ACLO positions are Indigenous specific positions. Whilst working in the position you will get some formal professional development and informal on-the-job training. You will also be assigned a mentor after an initial 2-day induction program.

To become a Police Aboriginal Liaison Officer you will need to become a fully sworn member of Victoria Police. See the entry for Police Officer - State for full details of entry requirements.

#### Additional Information

People who have established good networks within Aboriginal and Torres Strait Islander communities are encouraged to apply.

#### Employment Opportunities

The Victorian State Government recently pledged to increase Aboriginal representation in the policing, teaching and nursing sectors, to at least 1 per cent of the workforce by 2015.

#### For Further Information

- Victoria Police Recruitment Services Branch, Victoria Police Centre ☎ 13 20 01
- ✉ [hrdd.recruittingservices@police.vic.gov.au](mailto:hrdd.recruittingservices@police.vic.gov.au)
- 🌐 [www.police.vic.gov.au](http://www.police.vic.gov.au)

#### Related Jobs

Police Officer - State (p 327).

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## Industrial Designer

Also known as Product Designer.

Industrial designers create and produce designs for commercial, medical and industrial products. They also make models and prototypes of these designs for mass production.

The products that industrial designers create cover a wide range of manufactured goods, from toys and toasters to furniture and heavy machinery. Some work is carried out on the development of new products. Other work is related to updating and improving the design of existing products.

Industrial designers may perform the following tasks:

- discuss manufacturers' and clients' requirements
- undertake research and development
- consider factors influencing product design such as cost, selection of materials, production methods, new technology, safety, fashion trends, ergonomics, the environment, marketing and business strategy
- prepare presentation sketches showing style, size, shape, configuration of internal components and general appearance of products, either by hand or by computer
- supervise construction of models or samples of products and test them for function, quality and consumer appeal
- estimate production costs
- make engineering drawings and detailed diagrams of products and report these to manufacturers
- modify designs, where necessary, to meet manufacturing or cost requirements.

Industrial designers work closely with others in the field such as engineers, manufacturers, market researchers, marketing consultants, drafters and product testing staff.

They work in studios when creating and refining designs using their hands and/or computer-aided design. They may also spend time in the field observing and researching product usage, and in manufacturing plants observing methods of production and collecting information about new materials and production processes.

Designers may work long hours and experience periods of intense pressure when deadlines must be met.

#### Specialisations

**Consumer Appliance Designer** - works in a design team that develops products and appliances to assist or entertain in the home or office, such as whitegoods, electronic goods and computer equipment.

**Furniture Designer** - creates designs for the manufacture of domestic, commercial and industrial furniture.

**Transport Designer** - works in large teams to add shape, style and comfort to cars, trucks, trains and trams.

#### Personal Requirements

- problem-solving skills
- practical and patient
- creative
- good at technical activities
- good communication skills.

#### Education and Training

To become an industrial designer you usually have to study industrial design at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, design and technology or visual



communication and design are normally required. Applicants may also be required to submit a folio of work, sit a test and attend an interview. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *Monash University - Caulfield Campus:*

Bachelor of Industrial Design, 4 years full time

##### *RMIT University - City Campus:*

Bachelor of Design (Industrial Design), 4 years full time

##### *Swinburne University of Technology - Hawthorn Campus:*

Bachelor of Engineering (Product Design Engineering), 4 years full time or equivalent

##### *Swinburne University of Technology - Prahran Campus:*

Bachelor of Design (Industrial Design), 3 years full time or equivalent

#### Additional Information

After gaining some industry experience, graduates may qualify for full membership of the Design Institute of Australia. Student or associate membership may also be available prior to meeting the requirements for full membership.

#### Employment Opportunities

Most industrial designers work for manufacturing firms. They also work for private consultancies and government departments.

Most designers should expect to spend several years after graduation engaged in industry gaining experience as staff designers before attempting to enter the highly demanding field of design consulting. Most manufacturers prefer industrial designers to have had some previous commercial experience.

Due to competition with overseas products that are cheaper to manufacture, Australian manufacturers are moving towards producing products with better design.

There is a broad range of opportunities in product design, including one-off commissions, small-scale production and industrial production. There are also opportunities to establish designer/maker practices specialising in such disciplines as objects of art and furniture.

Work is predominantly concentrated in the manufacturing sector, in Sydney and Melbourne.

#### For Further Information

- Design Institute of Australia (National Office)  
✉ [www.design.org.au](http://www.design.org.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
✉ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)

#### Related Jobs

Architect (p 70); Biomedical Engineer (p 89); Fashion Designer (p 174); Graphic Designer (p 206); Industrial Engineer (p 224); Interior Designer (p 234); Mechanical Engineer (p 263); Model Maker (p 280); Multimedia Developer (p 281); Textile Designer (p 401).

## Industrial Engineer

Industrial engineers plan, organise, supervise and manage the operations of industries to ensure the economical, safe and effective use of materials, energy and people.

An industrial engineer may perform the following tasks:

- assess the techniques and equipment used in production processes to see if they can operate more efficiently
- plan and design systems that increase productivity by improving the integration of people, materials, equipment and finance
- choose and develop more efficient and safe manufacturing processes using new, existing or modified machinery and equipment
- introduce or recommend changes to work methods, safety measures and labour organisation
- work out the time taken to perform a task or to complete a particular production stage and set performance standards
- maximise comfort in the workplace by analysing and recommending changes to improve light, alter bench space or machine height and reduce noise.

#### Specialisations

**Methods Engineer** - studies work processes, tasks and operations in order to promote efficiency and productivity.

**Safety Engineer** - works to develop safety measures and more efficient and safe manufacturing processes.

#### Personal Requirements

- enjoy technical work
- good oral and written communication skills
- practical and creative
- good at technical activities
- able to work without supervision
- able to accept responsibility.

#### Education and Training

To become an industrial engineer you usually have to study engineering at university with a major in industrial, manufacturing, mechanical or production engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics and chemistry are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

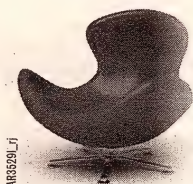
#### Degree Courses

##### *Deakin University - Geelong Campus and Distance Education:*

Bachelor of Engineering, majoring in engineering (mechanical), 4 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Engineering, majoring in engineering (mechanical), 4 years full time or equivalent



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**RMIT University - Bundoora and City Campuses:**

Bachelor of Engineering (Advanced Manufacturing and Mechatronics), 4 years full time

Bachelor of Engineering (Mechanical Engineering), 4 years full time

**Swinburne University of Technology - Hawthorn Campus:**

Bachelor of Engineering (Mechanical Engineering), 4 years full time or equivalent plus 6 to 12 months optional paid industry-based learning

**University of Melbourne - Parkville Campus:**

Bachelor of Science (Mechanical Systems), 3 years full time or equivalent, followed by the Master of Engineering (Mechanical), 2 years full time

**Victoria University - Footscray Park Campus:**

Bachelor of Engineering (Mechanical), 4 years full time

**Additional Information**

Graduates of approved engineering degrees are eligible for admission to Engineers Australia as graduate members.

**Employment Opportunities**

Industrial engineers are mainly employed by motor vehicle, refrigerator, household appliance and agricultural machinery manufacturing industries, and in the wholesale and retail trade. Others find employment in government departments, hospitals and management consultancies, and with research establishments. Employment is mainly in the private sector.

Industrial engineers are being employed increasingly in service industries such as retailing and banking. Factors that may affect the occupation are the levels of activity and restructuring in the manufacturing industry, government incentives for industry to restructure and the volume of product sales.

**For Further Information**

- Institute of Industrial Engineers (National Office)  
☎ (02) 6270 6588 ✉ societies@engineersaustralia.org.au  
🌐 www.iie.com.au
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au

**Related Jobs**

Chemical Engineer (p 110); Civil Engineer (p 116); Industrial Designer (p 223); Industrial Engineering Technologist (p 225); Interior Designer (p 234); Management Consultant (p 253); Mechanical Engineer (p 263).

**Industrial Engineering Technologist**

Industrial engineering technologists study and try to improve the quality and quantity of goods produced, and the efficiency and economics of production.

Industrial engineering technologists may perform the following tasks:

- conduct studies to evaluate work methods and assess the work content by use of measurement techniques, and use the information from such studies to determine and improve operating efficiencies of the company
- study material-handling methods and suggest or implement changes that reduce physical effort, increase safety and reduce handling costs
- design and modify equipment and processes to optimise use of resources and efficiency

- produce and submit proposals to management for upgrading equipment
- measure and study available floor space and draw plans of efficient plant layout to scale, using drafting equipment or Computer-Aided Drafting (CAD) software
- assist in developing tests for components and finished products to make sure that they meet quality standards and operating requirements
- plan assignments and make recommendations based on worker performance, machine capacity and production schedules
- assist with or produce routine maintenance schedules
- aid in surveillance of inventories, ranging from raw materials to finished products, and prepare status reports
- supervise and advise operators and work teams, making sure work is carried out according to plan
- communicate with contractors and suppliers of goods and services
- communicate with all persons in an organisation, from senior management through to union representatives and people on the shop floor.

Industrial engineering technologists deal with computer operations, including CAD, CAM (computer-aided manufacturing) methods and CNC (computer numerical control) programming, as well as robotics, production systems and manufacturing resource planning.

With further training, it is possible to become a professional engineer.

**Personal Requirements**

- enjoy technical and engineering activities
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work independently or as part of a team
- responsible attitude.

**Education and Training**

To become an industrial engineering technologist you usually have to study technology at university. To get into the course below you usually need to gain your VCE with mathematics. Contact the university for more information as requirements may change.

Some mechanical engineering degrees offer appropriate training for entry to this occupation. See the Mechanical Engineer entry for details of additional mechanical engineering courses available.

**Degree Courses****University of Ballarat - Mount Helen Campus:**

Bachelor of Technology (Management), majoring in engineering (mechanical), 3 years full time or equivalent

**Additional Information**

Graduates may be eligible for membership of Engineers Australia.

**Employment Opportunities**

Industrial engineering technologists mainly work for manufacturers of motor vehicles, whitegoods, food, pharmaceuticals and aerospace equipment.

**For Further Information**

- Institute of Industrial Engineers (National Office)  
☎ (02) 6270 6588 ✉ societies@engineersaustralia.org.au  
🌐 www.iie.com.au
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au



### Related Jobs

Cartographer (p 106); Cartographic Technician (p 106); Industrial Engineer (p 224); Mechanical Engineering Associate (p 264); Surveying Technician (p 388).

## Industrial Relations Officer

Also known as Employee Relations Officer.

Industrial relations officers manage employment conditions and related issues.

Industrial relations officers aim to encourage employees and employers to work towards effective organisational practices. They may represent industrial, commercial, union, employer or other organisations in industrial negotiations.

Industrial relations officers may perform the following tasks:

- advise on the operation of industrial awards and agreements
- undertake negotiations on rates of pay and conditions of employment for employees and employers
- develop and administer policies on different employee classifications, wage structures and related matters
- establish and maintain good relationships between employers and employees
- examine and attempt to resolve industrial disputes and grievances in the workplace (e.g. by acting as the management representative in discussions with trade unions about the effects of technological change on the duties of employees in a manufacturing workshop)
- study and interpret relevant industrial legislation (the laws formulated by parliament to control industrial practices in the workplace)
- advise others on the proper procedures for carrying out negotiations and on the special regulations relating to employment and salary agreements
- conduct research into particular industrial relations issues (e.g. the effects of changes in work practices on productivity)
- represent an industrial group as a representative before industrial tribunals
- advise on or develop and negotiate enterprise-based agreements.

The work of industrial relations officers varies according to where they are employed. Those working for organisations with a large workforce aim to minimise industrial disputes by acting as a communication link between management and employees. Those working for employer associations or trade unions aim to protect the interests of the group they are representing.

### Personal Requirements

- good communication skills
- good conflict-resolution skills
- willing to work within rules (legislative and legal).

### Education and Training

To become an industrial relations officer you usually have to complete a degree at university with a focus on industrial relations or human resource management. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees with a major in human resource management or industrial relations. Contact your preferred institution for further details.

### Employment Opportunities

Industrial relations officers may be employed by large private or public sector organisations, employer associations, trade unions or government. Some may progress to consultant and principal consultant within organisations or work for themselves. Their duties often include human resource management.

New graduates may have difficulty in obtaining immediate employment in industrial relations and may have to work initially in a related field, such as human resources. Prospects are better for experienced industrial relations officers who have proven their ability in this area.

### For Further Information

- Australian Human Resources Institute (National Office)  
☎ (03) 9918 9200 ✉ [reception@ahri.com.au](mailto:reception@ahri.com.au)  
🌐 [www.ahri.com.au](http://www.ahri.com.au)
- Fair Work Australia ☎ 1300 799 675 ✉ [inquiries@fwa.gov.au](mailto:inquiries@fwa.gov.au)  
🌐 [www.fwa.gov.au](http://www.fwa.gov.au)
- Victorian Trades Hall Council ☎ (03) 9659 3511  
✉ [hatkinson@vthc.org.au](mailto:hatkinson@vthc.org.au) 🌐 [www.vthc.org.au](http://www.vthc.org.au)

### Related Jobs

Human Resources Officer (p 219); Lawyer (p 244); Management Consultant (p 253); Occupational Health and Safety Officer (p 298); Political Scientist (p 328); Trade Union Official (p 411); Training Officer (p 414).

## Industrial Spray Painter

Industrial spray painters operate spray painting equipment to apply protective coatings to manufactured items or structures.

Industrial spray painters may perform the following tasks:

- prepare surfaces to be coated by using various methods (abrasive blasting, high pressure water washing or power wire brushing) to remove grease, dirt and rust
- monitor extractors, drying fans and heaters
- spray coatings (such as paint, lacquer, enamel, silver or copper solutions) onto manufactured products to provide finished surfaces
- move items to drying areas and unload and stack them for further painting or packaging
- rub down painted items between coats
- operate paint dipping baths and conveyor equipment
- touch up defective areas of painted items
- clean nozzles, containers and hoses of machines.

Industrial spray painters usually work in noisy factory or construction environments. Most of their time is spent standing or bent over.

Protective clothing, masks and goggles must be worn when handling poisonous materials.

### Personal Requirements

- enjoy practical and manual work
- physically fit
- no chest complaints
- no allergies related to paints, solvents or dust
- normal colour vision.

### Education and Training

You can work as an industrial spray painter without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Manufactured Mineral Products



or Metal and Engineering Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Industrial spray painters work for engineering firms, appliance manufacturers, furniture makers, foundries, motor vehicle manufacturers, and sheetmetal and railway workshops.

Job opportunities depend largely on the level of manufacturing activity.

#### For Further Information

- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Engineering Tradesperson - Fabrication (p 164); Metal Surface Finisher (p 270); Vehicle Painter (p 426).

## Industrial Textiles Fabricator

Also known as Canvas Goods Maker and Sailmaker.

Industrial textiles fabricators lay out, cut, assemble and repair products made of various textiles, including canvas and synthetic fabric. They produce awnings, tents, annexes, tarpaulins, horse rugs, vehicle covers, shade cloths, bags, rucksacks, boat covers, banners, pool covers and yacht sails.

Industrial textiles fabricators may perform the following tasks:

- produce patterns according to the specifications of technical drawings and designs
- select, measure and mark out material
- cut material to shape with shears or power cutters
- set up and maintain industrial sewing machines
- sew pieces of fabric together by hand or using light or industrial sewing machines
- hem articles, inserting rope if required, and attach eyelets, grommets and fasteners
- attach ropes to products using hand tools
- treat material for water and rot proofing
- operate high frequency and hot air welding equipment if handling PVC material
- make and repair sails for yachts from canvas and synthetic materials.

#### Personal Requirements

- enjoy practical and manual work
- good hand-eye coordination
- knowledge and understanding of mathematics

#### Education and Training

You can work as an industrial textiles fabricator without formal qualifications. Entry to this occupation may be improved if you complete a certificate in Textile Fabrication. Entry to the courses below usually requires Year 10. Contact the institution for more information as requirements may change.

You can also become an industrial textiles fabricator through a traineeship in Textiles Fabrication. Entry requirements may vary, but employers generally require year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your careers adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**RMIT University - Brunswick Campus:**

- Certificate II in Textile Fabrication
- Certificate III in Textile Fabrication

#### Employment Opportunities

Industrial textiles fabricators usually work in a factory environment, although they might also work for specialist fabrication enterprises such as sail lofts, shade cloth producers or manufacturers and repairers of canopies, blinds, awnings, tents, tarpaulins and other textile products. There are also opportunities for self-employment, which requires sales and customer service skills as well as craft skills.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Clothing and Soft Furnishing Production Worker (p 121); Leather Goods Maker (p 246); Shoe Repairer (p 371); Vehicle Trimmer (p 427).

## Information Technology Administrator

Information technology (IT) administrators manage the day-to-day operations of IT systems to make sure that they run effectively.

IT administrators work with IT managers to make sure that the computer system provides sufficient computing power to deliver the desired level of business performance.

IT administrators may perform the following tasks:

- talk with managerial, administrative and technical staff to determine information needs, data flows and systems definitions
- establish and control systems access and security
- coordinate protocols for operation within multi-user IT networks that provide voice, data and text transmission
- check systems in order to optimise performance and to initiate recovery action after system failures
- implement regular housekeeping procedures, including data backup
- manage the distribution and retention of data on various storage devices
- coordinate system updates and replacement of outdated versions
- maintain data dictionaries
- provide day-to-day advice to users on data structures and terminology
- provide assistance in testing new equipment and systems
- prepare technical reports on the operation of systems
- prepare systems cost estimates and cost-benefit analyses
- coordinate the work of support staff
- provide training in systems use and access.

#### Specialisations

**Database Administrator** - makes sure that the underlying technologies provide users with flexibility in the management, access, retrieval, sharing and configuration of the large amounts of data held by many systems. IT professionals such as senior programmers and analysts will often advance to this position after they have gained some experience with relevant database software solutions.

**Network Administrator** - provides operational support and management of a diverse area, covering networks involving the internet and private networks, through to large communication networks within various industries.

**Systems Administrator** - maintains and tunes large operating systems that may be acquired from external system developers in the form of mainframe, desktop or mid-range systems.



### Personal Requirements

- good at technical activities
- good communication skills
- able to quickly understand complex problems and devise effective solutions
- willing to maintain and update own knowledge of IT content
- able to work independently
- able to direct and oversee the work of others.

### Education and Training

To become an IT administrator you usually have to study a diploma or degree in information technology with a major in systems administration, network engineering or software development. To get into these courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements or offer external study. Contact the institutions you are interested in for more information as requirements may change.

Diploma and degree courses in information technology with a major in systems administration, network engineering or software development are offered by numerous Registered Training Organisations, including TAFE, and universities in Victoria. Refer to institution handbooks for further details.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for further information.

Costs, duration and entry requirements may vary between courses. See the online entry for Information Technology Administrator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Additional Information

Memberships with the Australian Computer Society are available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

### Employment Opportunities

IT administrators can work in IT-specific industries and other industries requiring IT expertise. With experience, there are opportunities for self-employment or starting your own business.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)

### Related Jobs

Business Systems Analyst (p 98); Systems Designer (Information Technology) (p 390).

## Information Technology Educator

Information technology (IT) educators provide instruction and are involved in the planning, administration and coordination of training.

IT educators may perform the following tasks:

- develop course and instructional material including visual aids, student handouts, training exercises and reference material
- plan, design and coordinate training programs
- assess and analyse training needs
- conduct teaching sessions or lectures
- assess students in various settings
- maintain student and client records
- evaluate learning effectiveness
- prepare reports for management on training budgets and outcomes

- work with experts in the areas where IT is being applied
- talk to developers and suppliers of new IT products and teaching methods to maintain valid personal knowledge and skill.

### Specialisations

**IT Lecturer** - teaches information technology skills and theory in an educational setting.

**IT Training Consultant** - may conduct employee training as part of new or modified systems implementation, as well as general IT skills training to achieve basic competence in areas such as word processing, online communication techniques or spreadsheet development.

**IT Technical Writer** - is involved in the creation and development of materials to support new IT installations or software modifications. Products may take the form of instruction manuals using print or other media. There is increasing demand for the development of online help systems and multimedia tools such as HyperText Markup Language (HTML).

### Personal Requirements

- able to explain complex concepts clearly
- good communication skills
- willing to maintain and update own knowledge of IT content
- good organisational skills
- able to act with initiative, tact and maturity
- patience in dealing with people of differing abilities and backgrounds
- able to work as part of a team
- good at mathematics and computing.

### Education and Training

To become an IT educator you usually have to study an information technology degree at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Degree courses ranging from 3 to 4 years full time or equivalent are widely available at universities throughout Victoria. Contact your chosen institution for full details.

### Additional Information

Memberships with the Australian Computer Society are available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

### Employment Opportunities

IT trainers and educators are employed by computer hardware and software suppliers, specialist training organisations and various education sectors, and are often part of the training staff within large enterprises. Information technology education and training covers primary and secondary teaching, as well as the vocational education and training, higher education and adult education sectors. With experience and sufficient start-up money there are opportunities for self-employment.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)
- Australian Society for Technical Communication (Victorian Chapter) ☎ 0412 500 519 (mobile call charges apply)  
✉ [admin@astcvic.org.au](mailto:admin@astcvic.org.au) 🌐 [www.astcvic.org.au](http://www.astcvic.org.au)



### Related Jobs

Analyst (Information Technology) (p 65); Business Systems Analyst (p 98); Computer Engineer (p 124); Computer Systems Auditor (p 125); Multimedia Developer (p 281); Sales Representative (Information Technology) (p 360); Systems Designer (Information Technology) (p 390); Teacher - Secondary (p 397); Technical and Further Education Lecturer (p 399); Training Officer (p 414).

## Information Technology Support Technician

Also known as Computing Support Technician.

Information technology (IT) support technicians provide technical advice and support to help people effectively use computer software and hardware.

IT support technicians may perform the following tasks:

- identify the hardware and software needed to provide solutions to problems
- assist in the customisation and adaptation of existing programs to meet users' requirements
- provide telephone, face-to-face and online support to customers
- download and install appropriate software
- connect users to networks and provide initial training in facilities and applications
- talk with vendors and programmers
- provide information relating to customers' hardware and software purchasing decisions
- make sure users can use the equipment by providing personal tuition and self-help instructions
- undertake housekeeping and reporting functions for the area of responsibility.

### Specialisations

**Help Desk Operator** - is generally involved in the provision of telephone or internet support to users of particular IT products.

**Internet Services and Support Person** - provides assistance and technical support to users of the internet and associated computer hardware and software.

**Network Support Person** - assists users who are connected to in-house networks (such as local area networks), to larger distributed mainframe systems and to the internet.

**Personal Computer (PC) User Support Person** - assists clients using personal computing technology.

### Personal Requirements

- strong client focus and genuine desire to assist
- analytical skills
- persistence
- good communication skills
- able to work as part of a team
- patient and tolerant
- good at technical activities
- methodical and disciplined approach to problem solving.

### Education and Training

To become an IT support technician you usually have to complete a certificate or diploma in information technology with an emphasis on IT support or systems administration. Entry to the certificate IV course below usually requires completion of a certificate III. Entry to the diploma courses usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become an IT support technician through a traineeship in Information Technology. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

*TAFE Victoria - various locations:*

Certificate IV in Information Technology (General)

### Diploma Courses

*Box Hill Institute of TAFE - Nelson Campus:*

Diploma of Information Technology (Systems Administration)

*Chisholm Institute of TAFE - Berwick Campus:*

Diploma of Information Technology (Systems Administration)

*Swinburne University of Technology (TAFE Division) - various locations:*

Diploma of Information Technology (Systems Administration)

*TAFE Victoria - various locations:*

Diploma of Information Technology (General)

### Additional Information

Memberships with the Australian Computer Society are available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

### Employment Opportunities

IT support technicians work in a range of occupational environments. They may work in IT-specific industries or in any industry requiring IT expertise. They may work as a member of a team or individually. With experience and sometimes further training, there are opportunities for self-employment or promotion to supervisory positions.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)
- Australian Industry Group 🌐 [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards 🌐 [www.ee-oz.com.au](http://www.ee-oz.com.au)

### Related Jobs

Computer Engineer (p 124); Programmer (Information Technology) (p 335); Sales Representative (Information Technology) (p 360).

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9269 8400



## Instrument Fitter

Also known as Precision Instrument Maker and Repairer and Precision Instrumentation Tradesperson.

Instrument fitters assemble and install precise instruments that measure, indicate, transmit, record and control.

Instrument fitters may perform the following tasks:

- fit and assemble instrument parts such as circuit boards, power supplies and control units, springs, bearings, lenses and glass faces
- check instruments for accuracy and calibrate (to manufacturers' specifications), using standard weights and measures, pneumatic, electrical and electronic test equipment and small hand tools



- install industrial instruments and equipment such as control panels, sensors, transmitters and controllers, meters and fixed cameras (if an appropriate licence is held)
- dismantle and re-assemble delicate mechanisms or electronic circuits
- overhaul instrument systems and repair or replace faulty parts using power tools and small hand tools
- check performance using testing and measuring instruments and make necessary adjustments
- set up computers and control equipment
- interface computers to control systems and check the operation of these systems.

Instrument fitters may specialise as camera repairers, scale adjusters or surgical instrument makers. Experienced instrument fitters may work with scientists to design, manufacture or modify laboratory equipment.

With experience, and sometimes further training, it is possible to become a supervisor or technician.

#### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected) and normal colour vision essential
- able to do precise and detailed work
- good at technical activities.

#### Education and Training

To become an instrument fitter you usually have to complete an apprenticeship in Instrumentation and Control. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Gaining dual trade status through the study of mechanical instrument fitting electives, either during your apprenticeship or through post-trade studies, is encouraged in this occupation.

#### Employment Opportunities

Instrument fitters usually work for power stations, mining and smelting plants, the petrochemical and minerals industries, instrument manufacturers, hospitals and other government bodies. They may also be employed by firms dealing with photographic instruments, surveying instruments, weighing or analysis devices, and with scientific laboratories. There is an increasing use of instruments in industry to provide efficient control of various processes.

Job opportunities depend on the level of activity in the mining, mineral processing, petrochemical, manufacturing, and water and power supply industries.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Aircraft Maintenance Engineer (p 63); Electrician (p 160); Electronics Engineering Associate (p 162); Textile Mechanic (p 402); Watch and Clock Maker and Repairer (p 432).

## Instrumentation Tradesperson

Also known as Electronic Instrument Tradesperson and Electrotechnology Instrumentation Tradesperson.

Instrumentation tradespersons install, modify, maintain and repair instrumentation used in measurement and control systems. These instruments measure and control temperature, pressure and flow in processes used in industries such as petro-chemical, mining, food and manufacturing.

Instrumentation tradespersons may perform the following tasks:

- install electronic instruments and control systems
- examine and test faulty electronic instruments and control systems to identify faults
- undertake calibration and make sure there is correct operation of instrumentation equipment
- repair and maintain electronic instruments and control systems.

With experience and sometimes further training, it is possible to become a supervisor or technician. Post-trade training is also available in new electronic technologies and advanced skills.

#### Personal Requirements

- enjoy technical and engineering work
- able to analyse and solve problems
- able to perform intricate work
- an aptitude for mechanics and electronics
- physically fit
- good eyesight (may be corrected) and normal colour vision.

#### Education and Training

To become an instrumentation tradesperson you usually have to complete an apprenticeship in Instrumentation and Control. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Gaining dual trade status by undertaking both an instrumentation and electrical apprenticeship is encouraged in this occupation.

#### Employment Opportunities

Instrumentation tradespersons may work in the minerals and pulp and paper industries, power stations, oil refineries, chemical processing plants and hospitals. Industry is increasingly using instruments in the monitoring and control of various processes.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)

#### Related Jobs

Electrician (p 160); Electronics Engineering Associate (p 162).

## Insurance Agent

Insurance agents represent insurance firms and sell insurance to clients, including individuals and organisations.

Insurance agents may perform the following tasks:

- draw up lists of clients from a variety of sources
- contact potential clients, usually by telephone, to arrange interviews
- research new insurance products to assist current and potential clients in making choices



- interview clients to identify their insurance needs and how insurance policies might meet those needs
- write an insurance recommendation list or plan to assist the client to make an informed decision
- explain to clients the details of insurance policies including the risks for which they are covered, the rates and the benefits
- recommend an appropriate amount and type of cover to individual clients
- collect premiums and keep records of payments
- regularly review clients' circumstances to make sure that the level of insurance is appropriate.

Some insurance agents are also licensed financial planners and/or investment advisers.

#### Personal Requirements

- good communication skills
- perseverance and motivation
- aptitude for working with figures
- confidence in selling products
- well presented.

#### Education and Training

You can work as an insurance agent without formal qualifications but most employers require you to gain your VCE. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate course below usually requires Year 10. Entry to the diploma course usually requires completion of Year 12. Contact the institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become an insurance agent through a traineeship in Financial Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Australian and New Zealand Institute of Insurance and Finance - Distance Education:*

Certificate IV in Financial Services (General Insurance)

#### Diploma Courses

*Australian and New Zealand Institute of Insurance and Finance - Distance Education:*

Diploma of Financial Services (General Insurance)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Financial Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

The insurance industry is regulated by the Australian Securities and Investments Commission (ASIC). Depending on the services that an insurance agent provides, they may need to be registered with the Commission or required to hold an Australian Financial Services (AFS) licence.

#### Employment Opportunities

Insurance agents usually represent a particular insurance company. Insurance agents may work in either city or country areas.

Most insurance agents work on a commission basis, with the level of business dependent upon the level of general economic activity. However, earnings and continued employment depend on both ability and experience.

#### For Further Information

- Australian and New Zealand Institute of Insurance and Finance (National Office) ☎ (03) 9613 7280  
✉ [studentservices@theinstitute.com.au](mailto:studentservices@theinstitute.com.au)  
🌐 [www.theinstitute.com.au](http://www.theinstitute.com.au)
- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@fsunion.org.au](mailto:careerscentre@fsunion.org.au) 🌐 [www.fsunion.org.au](http://www.fsunion.org.au)

#### Related Jobs

Actuary (p 52); Financial Dealer and Broker (p 179); Insurance Broker (p 231); Insurance Officer (p 232); Real Estate Salesperson (p 346); Sales Representative (p 359); Strata Managing Agent (p 386).

## Insurance Broker

Insurance brokers are independent agents who sell life, fire, accident and other forms of insurance for a range of insurance companies.

Insurance brokers may perform the following tasks:

- draw up a list of potential clients
- make contact with these clients and see if they are interested in insurance
- interview prospective clients to explain the details of an insurance policy and make recommendations on the amount and type of cover that may be taken
- research and review available insurance products to make sure that the clients are given the best and most appropriate offer
- market their services to increase their number of clients
- collect and keep records of payments.

#### Personal Requirements

- an aptitude for numbers and calculations
- sound judgment
- perseverance and motivation
- ability to pay attention to detail
- good communication skills.

#### Education and Training

To become an insurance broker you usually have to complete a diploma in insurance broking. In addition, several years of experience with a qualified broker is usually required before becoming an independent broker. Entry to the courses below usually requires Year 12 and, as a minimum, employment with an insurance brokerage. The courses are offered by distance education. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become an insurance broker through a traineeship in Financial Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Diploma Courses

*Australian and New Zealand Institute of Insurance and Finance - Distance Education:*

Diploma of Financial Services (Insurance Broking)

*National Insurance Brokers Association - Distance Education:*

Diploma of Financial Services (Insurance Broking)

Advanced Diploma of Financial Services

#### Additional Information

The insurance industry is regulated by the Australian Securities and Investments Commission (ASIC). Depending on the services that an insurance broker provides, they may need to be registered with the Commission or required to hold an Australian Financial Services (AFS) licence.



### Employment Opportunities

Most insurance brokers sell policies for several companies and may work in city or country areas.

Insurance brokers usually work on a commission basis, with the level of business dependent upon the level of general economic activity. However, earnings and continued employment depend to a considerable degree on ability and experience.

#### For Further Information

- Australian and New Zealand Institute of Insurance and Finance  
(National Office) ☎ (03) 9613 7280  
✉ [studentservices@theinstitute.com.au](mailto:studentservices@theinstitute.com.au)  
🌐 [www.theinstitute.com.au](http://www.theinstitute.com.au)
- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@fsunion.org.au](mailto:careerscentre@fsunion.org.au) 🌐 [www.fsunion.org.au](http://www.fsunion.org.au)
- NIBA College of Insurance and Risk Professionals  
☎ (02) 9459 4300 ✉ [qualifications@nibacollege.com.au](mailto:qualifications@nibacollege.com.au)  
🌐 [www.nibacollege.com.au](http://www.nibacollege.com.au)

#### Related Jobs

Actuary (p 52); Bank Officer (p 83); Conveyancer (p 130); Insurance Agent (p 230); Insurance Officer (p 232).

## Insurance Officer

Insurance officers carry out clerical and other functions associated with insurance transactions.

There are two broad types of insurance: life insurance which can provide an investment and/or life and disability protection; and general insurance which can cover a variety of events and property (such as fire, water damage, theft of goods and property, marine cover, sickness, accident and liability cover).

#### Specialisations

**Claims Officer** - arranges settlement of claims made by clients against their policies. They assess the validity of claims by interviewing clients or their representatives and obtaining evidence.

**Health Insurance Assessor** - assesses death, disability, illness and trauma claims on life and health insurance policies.

**Insurance Surveyor** - inspects all kinds of properties to check for hazards and the efficiency of protection devices, advises policy holders about risk improvement and provides inspection services to agents. They also prepare reports that influence insurers' decisions on risk acceptance and premiums. Insurance surveyors normally have an engineering, scientific or related qualification.

**Investment Officer** - invests revenue (income) from clients' premiums in government, commercial and stock market operations on behalf of their company and assists in the financial management of properties owned by the company.

**Junior Insurance Clerk** - carries out basic clerical work such as sorting and distributing mail, filing documents, keeping office records up to date, entering data and helping with public enquiries.

**Loss Assessor/Adjuster** - investigates and assesses losses for individuals and companies.

**Marine Underwriter** - is responsible for the acceptance or rejection of insurance proposals to cover cargo transported by ships, trucks, trains or aircraft.

**Superannuation Fund Administrator** - is responsible for the administration of employer/industry-based superannuation funds. This involves the day-to-day processing of new members, benefit

payments and contributions and the annual review of each plan to update member information and benefits.

**Underwriting Officer** - assesses risks and the premiums that should be charged in particular circumstances. Most of these positions are located in head offices in Melbourne and Sydney.

#### Personal Requirements

- aptitude for numbers and calculations
- sound judgment
- able to pay attention to detail
- good communication skills
- aptitude for working with computers.

#### Education and Training

You can work as an insurance officer without formal qualifications but most employers usually prefer you to gain your VCE. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate course below usually requires Year 10. Entry to the diploma courses usually requires completion of Year 12. Contact the institution for full details.

You can also become an insurance officer through a traineeship in Financial Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You may be able to study through distance education. See the Learning Pathways section for more information.

#### Certificate Courses

*Australian and New Zealand Institute of Insurance and Finance - Distance Education:*

Certificate IV in Financial Services (General Insurance)

#### Diploma Courses

*Australian and New Zealand Institute of Insurance and Finance - Distance Education:*

Diploma of Financial Services (General Insurance)

Diploma of Financial Services (Loss Adjusting)

Diploma of Financial Services (Insurance Broking)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Financial Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

As an insurance officer, you may be eligible for membership of the Australian Insurance Institute.

#### Employment Opportunities

Insurance officers are employed by insurance and finance companies. They may sell insurance and they usually work for wages rather than commission, making competition for available positions strong. Promotional prospects are better for those prepared to undertake further study in such fields as commerce, economics, law, computer science and mathematics.

An entrant to an insurance company generally starts as a clerk and can progress through the various departments to positions such as inspector, claims officer, re-insurance officer, loss adjuster, marine underwriter or manager.

#### For Further Information

- Australian and New Zealand Institute of Insurance and Finance  
(National Office) ☎ (03) 9613 7280  
✉ [studentservices@theinstitute.com.au](mailto:studentservices@theinstitute.com.au)  
🌐 [www.theinstitute.com.au](http://www.theinstitute.com.au)



- Finance Sector Union (National Office) ☎ 1300 366 378  
✉ [careerscentre@fsunion.org.au](mailto:careerscentre@fsunion.org.au) 🌐 [www.fsunion.org.au](http://www.fsunion.org.au)

#### Related Jobs

Accounts Clerk (p 50); Actuary (p 52); Bank Officer (p 83); Conveyancer (p 130); Customs Broker (p 139); Financial Dealer and Broker (p 179); Financial Dealer's Assistant (p 181); Insurance Agent (p 230); Insurance Broker (p 231); Stock and Station Agent (p 384).

## Integrated Rating

Also known as Merchant Mariner, Merchant Seafarer and Sailor.

Integrated ratings carry out maintenance and lookout duties on decks and in the engine rooms of merchant ships.

Integrated ratings may perform the following tasks:

- maintain deck equipment, cargo gear, rigging, and lifesaving and firefighting appliances
- stand lookout at sea and alert deck officers when other vessels, navigation marks or hazards are sighted
- steering the ship under supervision
- secure cargoes and splice wires and ropes
- handle rope and wire mooring lines, gangways and ladders when the ship is berthing and unberthing
- maintain cleanliness of decks and structures
- remove rust from, treat and paint the ship's sides and structures
- assist in maintaining and repairing the ship's engines and mechanical equipment
- clean the cargo compartment and the fresh water, ballast and oil tanks of the ship.

Integrated ratings may spend long periods at sea.

When steering the ship, on lookout duty or on watch, integrated ratings work under the direction of the officer of the watch. When in the engine room, they work under the direction of engineering officers.

#### Personal Requirements

- physically fit and enjoy manual activities
- able to pass a medical examination and eyesight test
- normal colour vision
- enjoy life at sea
- mechanical aptitude
- Australian citizenship or permanent residency.

#### Education and Training

To become an integrated rating you usually have to complete an Australian seafarer traineeship. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

Training is usually both on and off the job. The traineeship includes 10 to 15 weeks of off-the-job training provided through Registered Training Organisations, including the Australian Maritime College at the University of Tasmania, WA Maritime Training Centre and TAFE NSW. See the Useful addresses section for contact details. This training leads to Certificate III in Transport and Distribution (Maritime Operations - Integrated Rating). Following completion of the certificate, you must complete three blocks of 12 weeks structured training at sea. On successful completion of the traineeship, the Australian Maritime Safety Authority will issue a Certificate of Proficiency in Integrated Rating.

#### Additional Information

Integrated ratings must be over 18 years of age at the time of completing their qualifications.

#### Employment Opportunities

Integrated ratings work on coastal and overseas ships. There is a relatively small number of ships in the Australian merchant fleet, so positions can be competitive. However, there are also opportunities overseas, where Australian qualifications are well regarded.

#### For Further Information

- Australian Shipowners Association (Head Office)  
☎ (03) 9647 6000 ✉ [admin@asa.com.au](mailto:admin@asa.com.au)  
🌐 [www.asa.com.au](http://www.asa.com.au)
- Careers at Sea 🌐 [www.careersatsea.com.au](http://www.careersatsea.com.au)
- Australian Maritime Safety Authority (VIC) ☎ (03) 8612 6000  
✉ [melbourne@amsa.gov.au](mailto:melbourne@amsa.gov.au) 🌐 [www.amsa.gov.au](http://www.amsa.gov.au)

#### Related Jobs

Coxswain (p 135); Deck Hand (p 141); Marine Engineer (p 255); Ship's Master (p 369); Ship's Officer (p 370).

## Interior Decorator

Interior decorators plan and implement decoration schemes for homes, offices, shops and professional rooms.

Interior decorators may perform the following tasks:

- advise clients on the selection of colour schemes, layout, lighting, furniture, floor coverings, curtains, paint, wallpaper and hardware products (e.g. curtain fittings)
- visit clients' premises to look at existing conditions and make measurements
- provide sketch designs, specifications and cost estimates to the client for approval
- supervise and coordinate the installation and arrangement of furniture and furnishings
- undertake direct selling if working in a retail shop.

Interior decorators may have to work extended or irregular hours to meet clients' needs.

#### Personal Requirements

- creative
- good understanding of colour
- able to promote ideas
- awareness of fashion and design trends
- able to interact well with a variety of people.

#### Education and Training

You can work as an interior decorator without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses usually requires at least Year 10. Entry to the diploma courses below usually requires Year 12 with one or more of English and design, visual communication, studio arts or art. Applicants may also be required to attend an interview or present a folio of work.

Costs, duration and entry requirements may vary between courses. See the online entry for Interior Decorator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Diploma Courses

*Commercial Arts Training College - Melbourne Campus:*

Diploma of Commercial Arts (Interior Decoration and Design)

*Oceania Polytechnic Institute of Education:*

Diploma of Arts (Interior Decoration and Design)

*TAFE Victoria - various locations:*

Diploma of Arts (Interior Decoration and Design)



#### **GippsTAFE - Yallourn Campus:**

Diploma of Interior Design and Decoration

#### **Northern Melbourne Institute of TAFE - Greensborough and Preston Campuses:**

Diploma of Interior Design and Decoration

#### **Wodonga Institute of TAFE - Wodonga Campus:**

Diploma of Interior Design and Decoration

#### **Employment Opportunities**

Interior decorators work as retail decorator consultants, freelance decorators, consultants and managers with large department outlets, architectural support staff, colour scheme coordinators, retail sales assistants and decorators for the wholesale sector of the profession. Some experienced decorators establish their own businesses.

Many decorators are employed to decorate new residential and commercial properties.

Competition for employment as an interior decorator is very strong. A good deal of training takes place on the job and, as with other artistic areas, those who can demonstrate a high degree of talent and flair are more likely to gain employment.

#### **For Further Information**

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Design Institute of Australia (National Office)  
☎ [www.design.org.au](http://www.design.org.au)

#### **Related Jobs**

Fashion Designer (p 174); Interior Designer (p 234); Picture Framer (p 321); Sales Assistant (p 358); Upholsterer (p 422); Visual Merchandiser (p 430).

## **Interior Designer**

Interior designers design and supervise the construction or redevelopment of building interiors.

Interior designers may perform the following tasks:

- talk to clients and architects to work out client needs and intentions, and to make sure that safety requirements are met
- develop designs that are appropriate, functional and aesthetically pleasing
- prepare working drawings and specifications for interior construction, materials, finishes, space planning, lighting, furnishings and equipment
- estimate costs of materials, labour and time, and give estimates to clients for approval
- organise supplies and prepare detailed instructions for tradespeople
- inspect the work of suppliers and tradespeople, and maintain time, cost and quality controls
- work with specialists in technical areas concerned with fire, hydraulics, and mechanical, electrical and structural design, making sure that industry regulations are met
- prepare and administer tenders and contract documents
- re-design the interiors of old buildings and design furnishings to be made by cabinetmakers, antique furniture restorers and other tradespeople
- design exhibitions, commercial display stands or stage, film and television production sets.

Interior design requires an understanding of building construction, lighting, colour and furniture.

Interior designers may work alone as consultants or with a design group. They visit clients in their homes and offices, and can often work

long hours, sometimes in the evenings or at weekends. They usually work for clients on an agreed fee basis.

#### **Personal Requirements**

- creativity and artistic flair
- good at problem-solving and lateral thinking
- able to work independently or as part of a team
- good communication skills
- aptitude for technical drawing and illustration.

#### **Education and Training**

To become an interior designer you usually have to complete a diploma or advanced diploma in interior design. However, entry to this occupation may be improved if you have a degree in interior design.

Entry to the diploma courses below usually requires Year 12 with English. Entry to the degree courses usually requires you to gain your VCE with English and one of visual communication and design, design and technology, or studio arts. An interview, design exercise and presentation of a portfolio of your recent design work may also be required. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

#### **Diploma Courses**

##### **Box Hill Institute of TAFE - Whitehorse Campus:**

Diploma of Interior Design and Decoration

##### **CATC Design School:**

Diploma of Commercial Arts (Interior Decoration and Design)

Advanced Diploma of Commercial Arts (Digital Interior Design/Interior Design)

##### **GippsTAFE - Yallourn Campus:**

Diploma of Interior Design and Decoration

##### **Northern Melbourne Institute of TAFE - Greensborough and Preston Campuses:**

Diploma of Interior Design and Decoration

##### **Oceania Polytechnic Institute of Education:**

Advanced Diploma of Interior Design

##### **RMIT University (TAFE Division) - City Campus:**

Diploma of Interior Design and Decoration

##### **Wodonga Institute of TAFE - Wodonga Campus:**

Diploma of Interior Design and Decoration

#### **Degree Courses**

##### **Monash University - Caulfield Campus:**

Bachelor of Interior Architecture, 4 years full time

##### **RMIT University - City Campus:**

Bachelor of Design (Interior Design), 4 years full time

##### **Swinburne University of Technology - Prahran Campus:**

Bachelor of Design (Interior Design), 3 years full time or equivalent

##### **Whitehouse Institute of Design - Melbourne Campus:**

Bachelor of Design, specialising in interior design, 3 years full time

#### **Additional Information**

The Design Institute of Australia offers associate membership to graduates of recognised design courses and to those with a general interest in design.

#### **Employment Opportunities**

Interior designers can work on a wide range of projects, from residential to commercial, retail, hospitality, and institutional projects such as schools and hospitals. A few work as designers on stage, film and television productions.

Major employers include large construction firms, architects, some government departments and large retail stores. Opportunities exist for self-employment as consultants.



competition for jobs is very strong. Initially, interior designers may look for work interstate or overseas where a wider range of experience is available.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Design Institute of Australia (National Office)  
☎ [www.design.org.au](http://www.design.org.au)

#### Related Jobs

Architect (p 70); Architectural Technician (p 71); Artist (p 75); Graphic Designer (p 206); Industrial Designer (p 223); Industrial Engineer (p 224); Interior Decorator (p 233); Textile Designer (p 401); Upholsterer (p 422); Visual Merchandiser (p 430).

## Interpreter

Also known as Auslan Interpreter.

Interpreters use their knowledge of languages and cultures to convert a spoken or signed language into another spoken or signed language, usually within a limited time frame and in the presence of the participants requiring the translation.

Interpreters may perform the following tasks:

- interpret verbal or signed communications between two parties
- provide simultaneous or consecutive interpretations of conversations or speeches
- orally translate written texts.

Interpreters usually specialise in a particular language and may also specialise in a particular subject area, such as commerce, legal, medical, science, technical or welfare fields.

#### Personal Requirements

- excellent command of English
- knowledge in, or ability to learn, at least one other language
- able to work accurately and objectively
- initiative and research skills
- broad general knowledge
- good concentration skills
- high memory retention
- able to maintain confidentiality
- understanding and acceptance of different cultures.

#### Education and Training

To become an interpreter you must be fluent in a language other than English. You will also usually need to complete a course accredited by the National Accreditation Authority for Translators and Interpreters (NAATI), or acquire accreditation via a NAATI test. Completion of specific language courses and/or a relevant degree is desirable, although fluency in a foreign language may be obtained by living in that language's cultural environment. Contact NAATI for specific course and accreditation details.

Most TAFEs and universities offer language courses or language majors. These courses can help you become accredited either by developing the language skills needed for passing a NAATI test, or by meeting the entry requirements for a further course of study approved by NAATI. Contact NAATI for further information about accredited courses.

Costs, duration and entry requirements may vary between courses. See the online entry for Interpreter at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

The course below is approved by NAATI. Entry usually requires completion of Year 11 with English, as well as competence in oral and written English and one other language. Entry to postgraduate

courses is also available, and usually requires completion of an appropriate bachelor degree. You may have to sit a test to prove bilingual ability. Contact the institution for more information as requirements may change.

#### Diploma Courses

*RMIT University - City Campus:*

Diploma of Interpreting (LOTE/English)

#### Additional Information

Interpreters need to have a sound knowledge of a wide range of subjects to develop a thorough understanding of the complex issues that are discussed during interpreting assignments.

#### Employment Opportunities

Interpreters are employed by federal, state or territory government departments concerned with immigration, legal issues and law enforcement, social security and education. Organisations such as hospitals, banks, tourist agencies and private interpreting and translating firms may also employ interpreters.

The languages in demand change from time to time, particularly in relation to recent immigration and refugee arrivals. The demand for interpreters also depends upon levels of government funding for interpreter services and the general level of business activity.

Many interpreting positions, such as court interpreting or work for the state, territory and federal Translating and Interpreting Services, are part time or casual. A certain amount of interpreting work is conducted on a freelance contract basis. Permanent opportunities are limited, but are most likely in health and defence. Interpreters with NAATI accreditation may work freelance and some highly qualified interpreters work at international conferences, and government and/or business meetings.

#### For Further Information

- Australian Institute of Interpreters and Translators Inc (National Office) ☎ 1800 284 181 (FREECALL) ✉ [admin@ausit.org](mailto:admin@ausit.org)  
☎ [www.ausit.org](http://www.ausit.org)
- National Accreditation Authority for Translators and Interpreters (National Office) ☎ 1300 557 470 ✉ [info@naati.com.au](mailto:info@naati.com.au)  
☎ [www.naati.com.au](http://www.naati.com.au)

#### Related Jobs

Teacher - English as a Second Language (p 393); Translator (p 415).

## Inventory and Supply Officer

Also known as Stock Clerk.

Inventory and supply officers receive and send off goods, manage stock levels and record stock movement.

Inventory and supply officers may perform the following tasks:

- prepare purchase orders
- receive, store and issue goods
- manage stock levels and give out supplies from stock
- maintain stock records using manual and/or computerised systems
- prepare inventories
- be responsible for, and check supply invoices against, purchase orders
- prepare reports on adjustments to inventories, spoilt or damaged stock and changes in stock location
- find sources of supply and obtain quotes from suppliers
- price incoming goods, estimate costs of requisitions or value of stock and store articles
- coordinate purchasing, warehousing and inventory functions
- get rid of surplus assets and obsolete stock.



With experience and sometimes further training, it is possible to become an inventory control manager or supply manager.

Inventory officers normally manage the level of stock held by a company while supply officers (a more senior position in large companies) are usually responsible for the coordination of purchasing, warehousing and inventory functions.

#### Specialisation

**Purchasing Officer** - plans and schedules the delivery of goods and services for industrial, commercial or government establishments. They contact suppliers to obtain information on price, quality and delivery capabilities for the goods/services required, and meet with sales representatives from the various suppliers to compare their products and companies.

#### Personal Requirements

- enjoy clerical and administrative activities
- good planning and numeracy skills
- a methodical approach to work
- good communication skills
- aptitude for working with computer systems
- able to pay attention to detail.

#### Education and Training

You can work as an inventory and supply officer without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications in business or logistics.

Entry to the certificate and diploma courses below usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become an inventory and supply officer through a traineeship in Purchasing, Transport and Logistics (Logistics) or Wholesale. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You may be able to study through distance education. See the Learning Pathways section for more information.

#### Certificate Courses

*Kangan Institute of TAFE - Broadmeadows Campus:*

Certificate IV in Business (Operations Management)

*Sunraysia Institute of TAFE - Mildura, Robinvale and Swan Hill Campuses:*

Certificate III in Transport and Logistics (Logistics Operations)

*TAFE Victoria - various locations:*

Certificate III in Business

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Certificate IV in Business (Operations Management)

*Wodonga Institute of TAFE - Wodonga Campus:*

Certificate III in Transport and Logistics (Logistics Operations)

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Logistics

*Kangan Institute of TAFE - Broadmeadows Campus:*

Diploma of Business (Operations Management)

Advanced Diploma of Business (Operations Management)

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Diploma of Business (Operations Management)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Business Services, Retail or Transport and Logistics Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Inventory and supply officers are employed in hospitals and government agencies, and in construction, defence, manufacturing, mining, service, transport, wholesale and retail firms.

Increased use of computers and automation in inventory and stores management has affected the nature of inventory and supply work, with many businesses moving towards a single, automated warehousing operation focusing on just-in-time delivery, rather than a number of smaller stores that maintain large amounts of stock.

#### For Further Information

- Transport and Logistics Industry Skills Council  
☎ [www.tlisc.com.au](http://www.tlisc.com.au)

#### Related Jobs

Automotive Parts Interpreter (p 82); Logistics Clerk (p 251); Records and Information Manager (p 347); Storeperson (p 386); Transport Clerk (p 417).

## J

### Jackaroo

Also known as Jillaroo.

Jackaroos (male workers) and jillaroos (female workers) undertake a range of activities on cattle and sheep stations.

Jackaroos and jillaroos may perform the following tasks:

- care for livestock and treat minor injuries and illness
- muster on horseback and/or motorbike
- maintain station equipment and inspect, repair or replace fences, gates and yards
- assist with light household duties
- use and maintain vehicles and heavy machinery
- undertake farming work such as cultivation and haymaking
- undertake clerical and administrative tasks.

Jackaroos and jillaroos spend most of their time working outdoors. They may live in shared accommodation on the property or occasionally in the house of the owner or manager.

#### Personal Requirements

- enjoy working outdoors
- able to deal confidently with people
- good communication skills
- well organised
- able to make accurate observations
- mechanical aptitude
- able to endure isolation and limited social contact
- able to undertake manual and often heavy work
- interested in animals and their welfare
- able to handle animals with confidence and patience.

#### Education and Training

You can work as a jackaroo or jillaroo without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.



- Construction, Forestry, Mining and Energy Union - Construction and General Division (VIC) ☎ (03) 9341 3444  
✉ queries@vic.cfmeu.asn.au 🌐 www.cfmeuvic.com.au
- Housing Industry Association (VIC) ☎ (03) 9280 8200  
✉ vic\_enquiry@hia.com.au 🌐 http://hia.com.au

#### Related Jobs

Army Soldier - Technician (p 74); Cabinetmaker (p 99); Carpenter (p 105); Cooper (p 131); Glass and Glazing Tradesperson (p 205); Plumber (p 324); Stonemason (p 385); Wood Machinist (p 439).

## Journalist

Also known as Reporter.

Journalists write and edit news reports, commentaries and features for newspapers, magazines, electronic media and radio or television stations.

Journalists may perform the following tasks:

- gather news and information by interviewing people and attending events
- undertake research to provide background information for articles
- assess the suitability of reports and articles for publication or broadcasting, within an established style and format, and edit as necessary
- write articles that comment on or interpret news events and that may put forward a point of view on behalf of the publication
- present news on air.

Journalists usually start as cadets and report routine events. In newspapers and on radio and television, most reporters are expected to be 'generalists', that is, able to cover almost any topic of interest.

All journalists are required to understand the laws of defamation, contempt and copyright. They may have to work long and irregular hours and are often under pressure to meet deadlines.

Reporters may work indoors and carry out interviews by telephone or may have to work outdoors in all kinds of weather. Travel is sometimes a necessary part of the work.

With experience and sometimes further training, journalists may perform a variety of tasks according to their area of specialisation. Journalists may also work as editors. See the separate entry for Editor.

#### Specialisations

**Columnist** - writes a regular segment within their particular interest category (e.g. gardening, fashion, politics).

**Feature Writer** - writes detailed stories or presents commentaries on specific news topics.

**Leader Writer** - discusses news topics in the editorial columns of newspapers or magazines.

**News Reporter** - reports on day-to-day news events (e.g. crime, education, health, sport).

**Roundsperson** - reports and discusses a specialised area (e.g. politics, economics, education).

#### Personal Requirements

- able to write clear, concise, objective and accurate material quickly
- good general knowledge
- interested in current events
- aptitude to learn keyboard and shorthand skills
- able to speak clearly when working on radio and television.

#### Education and Training

To become a journalist you usually have to complete a degree at university with a major in journalism, or a related field, followed by a 1-year graduate cadetship involving on-the-job training. Alternatively, you can become a journalist by completing a 3-year cadetship, during which you receive instruction and gain experience in practical journalism under the supervision of senior journalists.

To get into the degree courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information. In some cases, applicants may also be required to attend an interview and/or sit a written test.

Degree courses in these areas are widely available at most universities in Victoria. Check institution handbooks for full details.

#### Additional Information

Cadetships are offered by national, regional and local media organisations. Entry requirements vary, but you will need to demonstrate a passion for journalism and a flair for writing. Competition is very strong. Contact the organisations you are interested in to find out about their cadetship program and application process.

#### Employment Opportunities

Most journalists work on country, metropolitan and suburban newspapers, or in radio and television, press agencies or magazines. Some work on a freelance basis. Others move into publicity roles in government departments or work as press secretaries for government ministers, or in related fields such as advertising, marketing and public relations.

Technological changes have increased the speed of exchange of information, leading to a more interpretative role for journalists. This has increased the demand for journalists with expertise in specialist fields such as economics and political science.

Factors that influence employment range from the number, size and economic viability of media organisations, to the use of modern technology and the degree of networking and resource sharing between organisations.

#### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ mail@alliance.org.au 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Arts Administrator (p 76); Copywriter (p 131); Editor (p 155); Media Presenter (p 266); Multimedia Developer (p 281); Public Relations Officer (p 339); Publisher (p 342); Transcript Typist (p 414); Writer (p 441).

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# K

## Kitchenhand

Also known as Kitchen Attendant.

Kitchenhands assist cooks and chefs in preparing and storing food, washing dishes and utensils, and cleaning work areas.

Kitchenhands may perform the following tasks:

- wash and clean utensils and dishes and make sure they are stored appropriately
- handle, sort, store and distribute food items
- wash, peel, chop, cut and cook foodstuffs and help to prepare salads and desserts
- dispose of rubbish
- organise laundering of linen
- clean food preparation equipment, floors and other kitchen tools or areas.

Kitchenhands may be employed on a full-time, part-time, casual or seasonal basis and usually work in shifts. They must be prepared to work irregular hours and to stand for long periods. Protective clothing such as overalls or gloves may be provided.

### Personal Requirements

- enjoy practical work
- good hand-eye coordination
- able to work quickly and safely
- good personal hygiene
- free from skin allergies to foods and detergents
- good communication skills
- able to work as part of a team.

### Education and Training

You can work as a kitchenhand without formal qualifications. You will probably get some informal training on the job.

You can also become a kitchenhand through a traineeship in Hospitality (Kitchen Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

The job provides the opportunity to learn about other kitchen work and can serve as an introduction to the catering and hospitality industries.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within the industry. See the Learning Pathways section for more information.

### Employment Opportunities

Kitchenhands work in hotels, motels, restaurants, cafes, hospitals, takeaway food bars, boarding schools, and factory or office canteens. They mostly work on a part-time or casual basis.

Due to high staff turnover there is usually a steady demand for experienced kitchenhands.

### For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ aha@aha.org.au 🌐 www.aha.org.au
- Service Skills Australia 🌐 www.servicesskills.com.au
- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au

### Related Jobs

Cleaner (p 119); Cook (p 130); Dietary Aide (p 146); Seafood Processor (p 363); Ship's Catering Attendant (p 369).

# L

## Laboratory Worker ✱

Also known as Laboratory Assistant, Laboratory Technician and Scientific Laboratory Worker.

Laboratory workers assist scientists, engineers, technical officers and other laboratory staff by collecting and preparing samples, carrying out experiments, making measurements with scientific equipment, recording results and presenting results for critical analysis.

Laboratory workers may perform the following tasks:

- clean, maintain and set up equipment for use in experiments
- collect, classify and preserve specimens and samples
- water and observe plants, and feed and observe animals in laboratories
- perform diagnostic and other scientific tests on specimens, such as animal and plant tissues or food and water samples in order to identify chemicals, minerals, cellular or other constituents, bacterial content and chemical contamination
- carry out experimental procedures and monitor processes
- inspect and test animals and plants for diseases
- perform routine mathematical calculations and prepare graphs
- use computers and computer-interfaced equipment
- carry out routine quality assurance checks on production line samples and materials.

Laboratory workers work in the field, on the process-production line and in the laboratory. They may work in a team or alone.

Depending on the type of laboratory, they may handle dangerous or hazardous materials and as such, safety awareness and compliance with regulations is important. Protective clothing and equipment is usually provided.

### Specialisation

**Senior Laboratory Technician/Technical Officer** - undertakes duties similar to, but more complex than, those of laboratory workers. They generally have more responsibility at work and may also supervise other staff.

### Personal Requirements

- enjoy scientific activities
- able to produce accurate and detailed work
- good eyesight (may be corrected) and normal colour vision
- able to work as part of a team.

### Education and Training

To become a laboratory worker you usually have to complete a traineeship in Laboratory Skills or Laboratory Techniques. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You can also become a laboratory worker by completing a certificate in Laboratory Skills/Techniques or a diploma in Laboratory Technology. Entry to the certificate courses below usually requires



Year 11. Entry to the diploma course usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate III in Laboratory Skills

Certificate IV in Laboratory Techniques

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Laboratory Technology (various specialisations)

#### Employment Opportunities

Laboratory workers usually work under the direction of scientists in a variety of fields which include dairy production, food preservation research, entomology, plant pathology, botany, seed production, agricultural chemistry, biochemistry, pathology, artificial insemination, wine production, minerals and chemical industries, science equipment manufacturing, plastics and occupational health.

Breweries, chemical manufacturers, food and beverage manufacturers, government agencies, hospitals, museums, schools, textile manufacturers, universities and a wide range of other industries employ laboratory workers.

#### For Further Information

- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Animal Attendant (p 66); Animal Technician (p 67); Aquaculture Technician (p 69); Chemical Plant Operator (p 111); Food Processing Technician (p 189); Food Technologist (p 189); Medical Laboratory Technician (p 268); Metallurgical Technician (p 271); Meteorological Technical Officer (p 272); Mineral Processing Operator (p 277); Quality Assurance Inspector (p 342); Science Field Officer (p 362); Textile Technician (p 403); Veterinary Nurse (p 429).

## Land Economist

Also known as Property Economist.

Land economists provide advice on the administration, development and use of land and property such as office buildings, shopping centres, blocks of flats, subdivisions, factories, hotels, resorts and farms.

Land economists may perform the following tasks:

- advise on the best method of sale (e.g. leasing proposals, purchase of property) and improvements in property presentation, and arrange the sale
- advise on the leasing of new premises, determining space requirements, the best geographical location and the costs involved, and negotiate with landlords
- develop and implement a marketing strategy for investment properties and negotiate with tenants
- collect and research information on property and write comprehensive reports
- prepare feasibility studies, carry out market research, evaluate the risks and returns of property developments and manage the project
- provide advice on property investment, and on achieving the best return for an investment property or group of properties.

Land economists may coordinate a team of professionals including accountants, architects, engineers, quantity surveyors, financiers, builders, real estate agents and property marketers for a property project.

Land economists may specialise in property areas such as industrial, commercial, retail, hotels and rural, or in property research or property investment analysis.

#### Personal Requirements

- good communication and presentation skills
- leadership qualities
- aptitude for mathematics and computers
- sound judgment and analytical skills.

#### Education and Training

To become a land economist you usually have to study land economics, property economics or a related degree at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

*Deakin University - Burwood Campus:*

Bachelor of Property and Real Estate, 3 years full time or equivalent

*RMIT University - City Campus:*

Bachelor of Applied Science (Property), 4 years full time

Bachelor of Applied Science (Valuation), 4 years full time

*University of Melbourne - Parkville Campus:*

Bachelor of Environments, majoring in property, 3 years full time or equivalent

#### Additional Information

Land economists can become members of the Australian Property Institute (API) by completing an API endorsed university degree. Student membership can be obtained while studying, with graduate membership available on completion of studies. With further experience in the field and continual professional development, associate and fellow memberships are also available.

#### Employment Opportunities

Land economists may be self-employed or work in real estate companies, financial institutions or property development companies. They may also be employed by investment banks, Real Estate Investment Trusts (REITs), state and federal government departments, local councils and other government organisations. The varied nature of the profession provides opportunities to move between different areas of employment.

Employment opportunities in this field fluctuate, depending on the condition of the property market.

#### For Further Information

- Australian Property Institute (VIC) ☎ (03) 9644 7500  
✉ [apivic@vic.api.org.au](mailto:apivic@vic.api.org.au) ☎ [www.vic.api.org.au](http://www.vic.api.org.au)
- The Real Estate Institute of Victoria Ltd ☎ (03) 9205 6666  
✉ [training@reiv.com.au](mailto:training@reiv.com.au) ☎ [www.reiv.com.au](http://www.reiv.com.au)

#### Related Jobs

Auctioneer (p 78); Financial Dealer and Broker (p 179); Real Estate Salesperson (p 346); Strata Managing Agent (p 386); Valuer (p 424).

## Landcare Worker

Landcare workers perform a range of tasks to maintain and restore native bushland and farmland.

Landcare workers may perform the following tasks:

- kill and remove weeds and unwanted vegetation using minimal disturbance techniques or herbicides



- collect seeds from local native plants
- propagate local native plants
- replant native trees, shrubs, grasses and wildflowers
- take part in pest (e.g. rabbit) eradication programs
- collect botanical and environmental data
- map vegetation
- construct and maintain tracks and facilities in bushland
- maintain equipment
- apply control measures to combat salinity.

Landcare workers frequently use herbicides and equipment to prune trees and remove debris.

Much of the work is fairly strenuous and involves a lot of bending and working at ground level. This is an outdoor job and workers are exposed to the elements.

#### Specialisations

**Bushland Regenerator** - aims to restore disrupted native bushland as closely as possible to its original, undisturbed state.

**Environmental Field Officer** - applies appropriate control measures to assist in protecting and minimising the harmful effects of human activity on the environment.

#### Personal Requirements

- able to perform physical outdoor work
- interested in the preservation of natural bushland
- good attention to detail
- able to work as part of a team.

#### Education and Training

You can work as a landcare worker without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

You can also become a landcare worker through an apprenticeship in Conservation and Land Management. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

##### Greening Australia Training:

Certificate I in Conservation and Land Management

Certificate II in Conservation and Land Management

##### TAFE Victoria - various locations:

Certificate II in Conservation and Land Management

Certificate III in Conservation and Land Management

#### Additional Information

The Green Corps program offers young people aged 17-20 the chance to receive quality training while participating in conservation projects. See <http://greencorps.greeningaustralia.org.au> or telephone 1800 671 078 (Toll Free) for details.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Conservation and Land Management Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Landcare workers are employed by state, territory and local governments; private organisations; and mining companies.

Job opportunities are expanding with greater awareness of environmental issues.

#### For Further Information

- Department of Primary Industries ☎ 13 61 86

✉ [customer.service@dpi.vic.gov.au](mailto:customer.service@dpi.vic.gov.au)

🌐 <http://new.dpi.vic.gov.au>

- Greening Australia VIC ☎ (03) 9450 5300

✉ [general@gavic.org.au](mailto:general@gavic.org.au) 🌐 [www.greeningaustralia.org.au](http://www.greeningaustralia.org.au)

#### Related Jobs

Agricultural Technical Officer (p 58); Farmer/Farm Manager (p 172); Horticultural Tradesperson (p 216); Natural Resource Manager (p 287); Park Ranger (p 309).

## Landscape Architect ✨

Landscape architects plan and design land areas for projects such as parks, schools, hospitals, roads, malls, plazas, sports complexes, holiday resorts, hotel complexes, shopping centres, airports, housing subdivisions, national parks, playgrounds and commercial, industrial and residential sites.

Landscape architects may perform the following tasks:

- study and discuss designs, costs and construction of projects with clients
- talk to architects, engineers and other professionals, and gather information on factors such as historical and natural conservation requirements, soil structure, drainage, rock features, existing and proposed buildings, and sun and shade movements
- draw up site plans outlining the development of the site, discuss with clients and seek approval
- prepare specifications, arrange cost estimates, list building materials required and detail working drawings of the site, showing features such as location of buildings, roads and walkways; land contours and drainage systems; soil conservation measures; and the vegetation to be planted, retained or removed
- undertake heritage studies and plans of management for open space areas
- use computer and video-simulation packages to develop broadscale landscape plans
- supervise site work
- advise on landscape problems concerned with environmental planning.

Landscape architects may specialise in projects such as parks, playgrounds, roads or public housing. They may also specialise in types of services such as regional planning and resource management, site selection, cost studies or site construction.

Landscape architects may work independently or with other professionals such as architects, engineers and town planners.

#### Personal Requirements

- analytical and planning ability
- enjoy and have talent for design
- creative flair
- good communication skills
- enjoy the natural environment
- able to work independently or as part of a team.

#### Education and Training

To become a landscape architect you usually have to study a landscape architecture degree at a university accredited by the Australian Institute of Landscape Architects (AILA). To get into these courses you usually need to gain your VCE with English. Applicants may also be required to attend an interview and submit a portfolio. The various universities have different prerequisites and some have



flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *RMIT University - City Campus:*

Bachelor of Design (Landscape Architecture), 3 years full time, followed by Master of Landscape Architecture, 2 years full time

##### *University of Melbourne - Parkville Campus:*

Bachelor of Environments, majoring in landscape architecture, 3 years full time or equivalent, followed by Master of Landscape Architecture, 2 years full time or equivalent

#### Additional Information

Membership of the Australian Institute of Landscape Architects is beneficial to those practising as landscape architects. Corporate membership is gained by completing an accredited course, undertaking two years of practical experience, and passing the corporate entry procedures set by the Institute.

#### Employment Opportunities

Most landscape architects are employed in small, private consultancies or with private businesses such as architects and town planners. The remainder work in federal, state, territory and local government agencies. Many landscape architects establish their own practices.

#### For Further Information

- Australian Institute of Landscape Architects (VIC)  
[www.aiala.org.au/victoria](http://www.aiala.org.au/victoria)

#### Related Jobs

Architect (p 70); Quantity Surveyor (p 343); Urban and Regional Planner (p 423).

## Laundry Worker

Laundry workers sort, check and stack items of clothing and linen, and load and unload washing and drying machines in laundries.

Laundry workers may perform the following tasks:

- make sure that items are identified with the customer's number or mark
- barcode and record items as they arrive
- separate items according to colour, fabric and the cleaning treatment required, watching for damage and stains
- load and unload washing and drying machines
- monitor the computerised washing and drying systems in laundry machines
- operate special pressing and ironing machines
- fold, count, stack and package items for delivery
- maintain the machinery.

With experience and sometimes further training, it is possible to progress to supervisory and management positions.

Laundries are warm, steamy and quite noisy workplaces. Laundry workers may be required to stand for long periods.

#### Personal Requirements

- able to read and understand washing instructions
- enjoy practical work
- physically fit
- no skin allergies
- able to work quickly and efficiently.

#### Education and Training

You can work as a laundry worker without formal qualifications. You will probably get some informal training on the job.

You can also become a laundry worker through a traineeship in Laundry. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Textiles, Clothing and Footwear Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Laundry workers usually work in large public or private laundries. These may be industrial laundries and linen services that supply organisations such as motels, hotels, restaurants, convention centres, institutions, industrial sites and nursing or convalescent homes with clean linen. Some hospitals and nursing homes employ laundry workers in their own laundry. Laundry workers can be employed in coin laundries and some also provide a nappy service.

Supervisory positions are usually filled by laundry workers who have shown that they can work unsupervised and learn quickly.

Although more laundry services have opened in recent years, there has been a move towards computerised equipment. Machines are now doing more of what was once manual laundry work.

It is expected that the trend towards computerised machinery will continue and laundry workers will need to be familiar with the new machinery.

#### For Further Information

- Textile Rental and Laundry Association ☎ (03) 9867 0111  
[rob.lorenzoni@aigroup.asn.au](mailto:rob.lorenzoni@aigroup.asn.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Cleaner (p 119); Dry Cleaner (p 153).

## Law Clerk

Also known as Paralegal and Legal Executive.

Law clerks perform a variety of legal tasks under the supervision of solicitors, barristers or clerks of court.

Law clerks may assist their employers in all areas of law, including probate (proving the validity of wills), conveyancing (dealings in land and property), criminal law, family law, company law and civil litigation.

Law clerks may perform the following tasks:

- search land titles to check details such as property boundaries and ownership of the property
- attend settlements for the purchase or sale of land
- examine contracts and obtain information about contracts so that solicitors can proceed with finalisation
- fill out legal forms and lodge them with government offices or the courts
- interview clients and draft clauses for contracts
- undertake company, business name, bankruptcy and other searches
- help maintain bookkeeping records
- prepare statements of evidence by witnesses and briefing papers for use by barristers when a solicitor's client has to go to court
- assist clients by providing information on legal processes
- assist prosecuting or defence lawyers in court and arrange for the attendance of witnesses at court



- brief witnesses and take notes of evidence
- assist barristers and senior counsel with case management.

#### Personal Requirements

- interest in the law
- good knowledge of English
- accuracy and precision
- able to think logically and clearly.

#### Education and Training

You can work as a law clerk without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have a business qualification with a legal focus.

To get into the courses below you usually need to gain your VCE, although some providers will accept students with Year 10 for certificate III studies.

You can also become a law clerk through a traineeship in Legal Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

#### Certificate Courses

**TAFE Victoria - various locations:**

Certificate III in Business Administration - Legal

**Northern Melbourne Institute of TAFE - Preston Campus:**

Certificate IV in Legal Services

**Victoria University (TAFE Division) - Footscray Nicholson and St Albans Campuses:**

Certificate IV in Legal Services

#### Diploma Courses

**Victoria University (TAFE Division) - Footscray Nicholson and St Albans Campuses:**

Diploma of Legal Services (entry via Certificate IV in Legal Services)

**TAFE Victoria - various locations:**

Advanced Diploma of Business - Legal Practice

#### Additional Information

Students and people employed in this occupation may be eligible for membership of the Institute of Legal Executives (Victoria). Graduates of approved courses, with experience in the field, may be eligible for membership as a Fellow of the Institute. Fellows of the Institute are recognised as 'Legal Executives'.

#### Employment Opportunities

Law clerks are employed in a wide range of industries working for independent law firms, barristers, government departments and the legal departments of large organisations. Many law clerks begin as legal secretaries, learning about the law and legal language before taking on more responsibility.

#### For Further Information

- Institute of Legal Executives (Victoria) ☎ (03) 9808 7159  
✉ [austilex@alphalink.com.au](mailto:austilex@alphalink.com.au) 🌐 [www.legalexecutives.asn.au](http://www.legalexecutives.asn.au)
- Education Liaison Officer, Law Institute of Victoria  
☎ (03) 9607 9311 ✉ [lawinst@liv.asn.au](mailto:lawinst@liv.asn.au) 🌐 [www.liv.asn.au](http://www.liv.asn.au)
- Human Resources, Victoria Legal Aid ☎ (03) 9269 0537  
🌐 [www.legalaid.vic.gov.au](http://www.legalaid.vic.gov.au)

#### Related Jobs

Conveyancer (p 130); Court Officer (p 134); Lawyer (p 244); Settlement Clerk (p 367).

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### Lawyer

Also known as Legal Practitioner.

Lawyers provide advice, write documents and conduct negotiations on legal matters, and may represent clients in court and tribunal proceedings.

Lawyers are described as solicitors or barristers, depending on the work they do.

The distinction between solicitors and barristers varies from state to state. In NSW, Victoria and Queensland, lawyers practise as either a solicitor or a barrister. In SA, WA, Tasmania, the ACT and NT, the work of barristers and solicitors is usually combined, with many lawyers describing themselves as 'barrister and solicitor'.

#### Specialisations

**Solicitor** - may specialise in areas such as property, probate, workers' compensation, family law, personal injuries litigation, commercial or criminal law.

**Barrister** - provides legal advice and drafts documents in complex matters. They conduct negotiations and appear in courts and tribunal hearings on behalf of clients. Generally, the barrister's client is a solicitor, who briefs the barrister on behalf of a company or private person when a case requires specialist research or advocacy skills. A barrister may also undertake research and consult with clients and witnesses.

Barristers wear wigs and gowns in some courts, solicitors do not. It is common to practise as a solicitor for a few years before becoming a barrister.

**Magistrate** - hears criminal matters to determine whether defendants will be committed for trial, and judges minor criminal offences without a jury.

**Judge** - presides over civil and criminal proceedings in courts of law, making sure that trials are run fairly, according to the rules of law and evidence.

#### Personal Requirements

- good oral and written communication skills
- able to understand, analyse and use facts quickly and logically
- able to work under pressure and deal with a variety of people
- integrity and good character.

#### Education and Training

To become a lawyer you usually have to complete a law degree at university. To get into these courses you usually need to gain your



VCE with English. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact the universities you are interested in for more information as requirements may change.

Students are often advised to undertake a combined degree course that leads to two degrees. The prerequisite subjects required for entry into these combined courses also depend on the non-law component of the combined course.

#### Degree Courses

The following universities offer a Bachelor of Laws (either on its own or as part of a double degree), 4 to 5 years full time or equivalent.

*Deakin University - Burwood, Geelong and Warrnambool Campuses and Distance Education*

*La Trobe University - Bendigo and Bundoora Campuses*

*Monash University - Clayton Campus*

*Victoria University - City Queen, City Flinders and Footscray Park Campuses*

#### Additional Information

Further practical training after the completion of a law degree may be required in some states and territories in order to become a legal practitioner. For further information on post-degree requirements, contact the Law Institute of Victoria.

#### Employment Opportunities

Solicitors may work in private legal practices, either on their own or in a partnership. They may also work in state, territory or federal government departments, in community law centres or with business corporations.

Barristers are self-employed but normally practise in chambers with other barristers. Barristers may be promoted to Senior Counsel and eventually be appointed as a judge. Barristers and solicitors may also become magistrates.

Some lawyers do not remain within the profession, and move into administrative positions in commerce and industry or in the public service.

#### For Further Information

- Education Liaison Officer, Law Institute of Victoria  
☎ (03) 9607 9311 ✉ lawinst@liv.asn.au 🌐 www.liv.asn.au
- Human Resources, Victoria Legal Aid ☎ (03) 9269 0537  
🌐 www.legalaid.vic.gov.au

#### Related Jobs

Conveyancer (p 130); Court Officer (p 134); Foreign Affairs and Trade Officer (p 191); Industrial Relations Officer (p 226); Law Clerk (p 243); Parliamentarian (p 310); Valuer (p 424).

## Law at Melbourne.

law.unimelb.edu.au/



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## Leather Goods Maker

Also known as Saddler.

Leather goods makers create and repair leather articles such as handbags, wallets, gloves, belts, harnesses and saddlery (horse riding equipment).

Leather goods makers may perform the following tasks:

- select suitable types and grades of leather
- draw patterns
- cut leather to size and shape using special cutting machines called 'clicking' and 'skiving' machines
- join pieces together with rivets, threads or adhesives
- sew by hand using needles
- fill saddles and collars with hair or flock (stuffing)
- attach buckles, eyelets and metal decorations, and emboss decorative patterns
- finish products with stain, dye, polish or coats of lacquer
- repair damaged goods.

Leather goods makers may specialise in saddlery, harnesses and horse blankets, footwear, hats, whips, clothing, upholstery or special leather goods.

### Personal Requirements

- enjoy practical and manual work
- good hand-eye coordination
- able to perform detailed work.

### Education and Training

You can work as a leather goods maker without formal qualifications. You will probably get some informal training on the job.

You can also become a leather goods maker through a traineeship in Leather Goods Production. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section.

### Employment Opportunities

Leather goods makers are employed by leather companies, saddle makers, pastoral companies and craft workshops. Self-employment is also possible.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

### Related Jobs

Clothing and Soft Furnishing Production Worker (p 121); Craftsperson (p 135); Industrial Textiles Fabricator (p 227); Shoe Repairer (p 371); Upholsterer (p 422).

## Librarian

Librarians design, develop and manage collections of recorded material and the delivery of information services to users.

Library collections can include books, journals, newspapers, pamphlets, manuscripts, maps, films, sound recordings, microfilms, CD-ROMs, e-books, e-journals and databases.

Librarians may perform the following tasks:

- choose, catalogue, classify and index library and information resources
- develop and manage collections

- assist users to find the information they are seeking, through services such as inter-library loans and the retrieval of information from external computer systems and the internet
- assist users to identify or interpret information
- conduct training programs to assist library users with their information searches
- design and conduct reader education courses
- train and supervise other staff
- create and maintain databases
- search computerised databases for information
- promote the collections and resources of the library using marketing techniques
- answer personal, written, telephone and email enquiries from the public and other libraries
- develop policies and services to better serve user needs
- be involved in the planning and selection of computer systems for use within the library
- prepare bibliographies, which contain sources of information on particular subjects.

In large libraries, librarians may specialise in areas such as acquisition, cataloguing, reference work, online services or children's services. They may also work in specialist libraries including company, law, medical or school libraries. See the separate entries for Teacher - Primary and Teacher - Secondary for information on Teacher Librarians.

Librarians are assisted in their work by library technicians and library assistants.

### Specialisation

**Information Manager** - is responsible for bridging the gap between sources of information and those who need to access it. Information managers may also become involved in research, technical writing, public relations, desktop publishing, database management and design, and market research.

### Personal Requirements

- aptitude for working with computers
- good organisational skills
- a wide general knowledge
- good communication skills
- strong customer service focus.

### Education and Training

To become a librarian you usually have to complete a library and information studies or information management degree at university. Alternatively, you can undertake a degree in any discipline, followed by a postgraduate course in information studies or information management. To get into the undergraduate courses below you usually need to gain your VCE with English and mathematics. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course. The various universities have different prerequisites and some have flexible entry requirements. Some courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

### Degree Courses

#### Monash University - Caulfield Campus:

Bachelor of Information Technology and Systems (Enterprise Information Management), majoring in information management, 3 years full time or equivalent

### Additional Information

Successful completion of a relevant course usually provides eligibility for membership of the Australian Library and Information Association.



## Employment Opportunities

Librarians work in public libraries, archives, schools, technical colleges and tertiary institutions. They also work for government departments, museums, research and consulting organisations, teaching hospitals, industrial and business firms, all of which have libraries specialising in particular fields.

### For Further Information

- Australian Library and Information Association Ltd (National Office)  
☎ (02) 6215 8222 ✉ enquiry@alia.org.au 🌐 www.alia.org.au

### Related Jobs

Archivist (p 72); Clinical Coder (p 120); Health Information Manager (p 210); Library Assistant (p 247); Library Technician (p 247); Records and Information Manager (p 347); Teacher - Primary (p 396); Teacher - Secondary (p 397).

## Library Assistant

Library assistants maintain, sort, issue and receive library items such as books, magazines, CDs, films and associated records.

Library assistants may perform the following tasks:

- sort material according to classification or catalogue numbers and return to shelves or other storage areas
- issue items from library collections to borrowers and record identification data and due dates
- check records to compile lists of overdue items
- issue overdue notices to borrowers
- inspect returned items for damage and make minor repairs where required
- issue identification cards to borrowers
- answer telephone enquiries
- assist librarians and library technicians with information enquiries
- assist with outreach services, such as a home library service for people who are not able to visit the library due to illness or disability
- operate photocopying machines to duplicate material
- maintain the operations of photocopying machines by clearing simple blockages and replenishing paper supply
- assist in the production of publicity displays and multimedia kits
- unpack new materials and sort mail
- assist customers in finding print and non-print materials
- type catalogue cards and labels and file appropriately
- perform inter-library loan functions
- search Kinetica, Australia's online cataloguing database, for records
- input data to local databases.

Library assistants work as part of a team under the supervision of librarians or library technicians. They may be required to work evenings, weekends and public holidays.

### Personal Requirements

- interested in computers
- a practical, logical approach to work
- good organisational skills
- good communication skills
- able to work under pressure
- good customer service skills.

### Education and Training

You can work as a library assistant without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become a library assistant through a traineeship in Library and Information Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

*Swinburne University of Technology - TAFE Prahran Campus:*

Certificate III in Library/Information Services

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Certificate II in Library/Information Services

Certificate III in Library/Information Services

*TAFE Victoria - various locations:*

Certificate IV in Library/Information Services

### Additional Information

Library assistants may need a drivers licence.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Museum, Library and Information Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Library assistants are employed in public libraries, special libraries, university libraries and by some private companies.

Many vacancies for library assistants require applicants to have library experience, so undertaking work experience and/or voluntary work in a library is recommended.

Much of the work for new library assistants is part time or casual and a typical career path is to move from this to permanent, full-time employment.

Competition is intense for the few available positions. Demand may be affected by the introduction of new technologies and levels of government funding for libraries.

### For Further Information

- Australian Library and Information Association Ltd (National Office)  
☎ (02) 6215 8222 ✉ enquiry@alia.org.au 🌐 www.alia.org.au

### Related Jobs

Audiovisual Technician (p 80); Education Aide (p 156); Librarian (p 246); Library Technician (p 247); Records and Information Manager (p 347).

## Library Technician

Library technicians assist librarians and other information managers to organise and operate systems for handling recorded material and files.

Library technicians cover all facets of library functions including circulation, acquisitions, reference and audiovisual. They usually work under the supervision of librarians, but may also supervise other library or clerical staff.

Library technicians may perform the following tasks:

- order, check and sort new library materials
- search and check information on materials to be catalogued, such as books, DVDs, magazines and journals



- maintain library records and circulation systems by entering data into computerised databases and editing computer records
- enter cataloguing details onto networked online cataloguing databases
- search online databases for copy cataloguing data
- assist librarians to answer loan and reference queries at the counter or via telephone or email
- operate and assist in the simple maintenance of audiovisual and photocopying equipment
- produce display and publicity material
- arrange loans to and from other libraries
- conduct library tours and reader education
- assist client use of audiovisual materials, online databases and internet services
- use internet resources to provide inter-library loan services to clients
- organise the binding of library materials.

The work done by library technicians varies with the size and type of library. In large libraries, they may specialise in one or more areas (e.g. acquisition, cataloguing, reference work, online services or children's services). They may also work in specialist libraries such as school, company or law libraries.

#### Personal Requirements

- a methodical approach to work
- a keen eye for detail
- good communication skills
- good organisational skills
- good computer skills
- good interpersonal skills.

#### Education and Training

To become a library technician you usually have to complete a diploma in library and information services recognised by the Australian Library and Information Association (ALIA). Entry to the diploma courses below usually requires Year 12. Applicants are also required to attend an interview. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Diploma Courses

*Box Hill Institute of TAFE - Nelson Campus:*

Diploma of Library/Information Services

*Chisholm Institute - Cranbourne and Frankston Campuses:*

Diploma of Library/Information Services

*Swinburne University of Technology (TAFE Division) - Prahran Campus:*

Diploma of Library/Information Services

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Diploma of Library/Information Services

#### Additional Information

Graduates may be eligible for membership of the Australian Library and Information Association (ALIA).

#### Employment Opportunities

Library technicians work in state, territory and local government libraries, tertiary institutions, government departments, hospitals, research companies, large and small private organisations and schools.

#### For Further Information

- Australian Library and Information Association Ltd (National Office)  
☎ (02) 6215 8222 ✉ enquiry@alia.org.au 🌐 www.alia.org.au

#### Related Jobs

Audiovisual Technician (p 80); Education Aide (p 156); Librarian (p 246); Library Assistant (p 247); Records and Information Manager (p 347).

## Lifeguard

Also known as Lifesaver, Pool Attendant and Swimming Pool Attendant.

Lifeguards look after the safety of people at beaches or swimming pools through public relations, public education, accident prevention and rescue.

Lifeguards may perform the following tasks:

- supervise swimmers and bathers to prevent accidents and make sure they follow safety regulations
- rescue swimmers in difficulty and provide first aid treatment if required
- educate the community in water safety
- place signs or barriers to warn of dangerous conditions or areas, and make sure users are aware of potential dangers
- caution people behaving in an unsafe manner and expel those who refuse to cooperate
- report incidents to management or other authorities
- design and implement emergency procedures
- undertake basic water quality control and testing procedures
- maintain rescue equipment
- care for lost children
- perform basic administrative duties such as writing reports.

Lifeguards who work at outdoor venues spend most of their time in conditions that vary from extremely hot to cold and windy.

#### Personal Requirements

- enjoy outdoor activities
- physically fit
- good communication skills
- work well in a team environment
- able to be alert for long periods
- age limits may apply.

#### Education and Training

To work as a lifeguard you will need to obtain a certificate or licence from the relevant body. Pool lifeguards need a current Royal Life Saving Society Australia (RLSSA) Lifeguard Licence. Surf lifesavers need a current Advanced Life Saving Certificate (Gold Medallion) from Surf Life Saving Australia.

Most employers require at least Year 10.

#### Additional Information

To obtain the certificates or licences listed above, you must meet certain prerequisites. For pool lifeguards, these include an Oxygen Resuscitation Certificate and a Senior First Aid Certificate. For surf lifesavers, these include an Inflatable Rescue Boat Drivers Certificate. You must demonstrate your proficiency annually to keep your qualifications current. For full details, contact Life Saving Victoria.

#### Employment Opportunities

Pool lifeguards are employed by local councils or by private commercial pool owners. Indoor facilities and some councils retain people all year round, but there are more opportunities for outdoor pool and beach work during the warmer months or casual work during school holidays and on weekends. Surf lifesavers are employed by seaside councils or Surf Life Saving Australia.



#### For Further Information

- Life Saving Victoria ☎ (03) 9676 6900  
✉ mail@lifesavingvictoria.com.au  
🌐 www.lifesavingvictoria.com.au

#### Related Jobs

Fitness Instructor (p 185); Recreation Officer (p 348); Sportsperson (p 381).

## Lift Electrician

Also known as Lift Mechanic.

Lift electricians assemble, install, adjust, maintain and repair electric and hydraulic freight and passenger lifts and escalators.

Lift electricians may perform the following tasks:

- study drawings and lay out the position of steelwork, guide rails, motors, pumps and cylinders
- install lift guide rails and check that they are correctly aligned
- install cables, counterweights, pumps, motor foundations, escalator drives, lift cars, doors, entrance frames and safety and control devices
- connect electrical wiring to control panels and electric motors
- test and adjust assemblies, including cables, wiring and electric controls, and adjust safety devices such as brakes and speed governors
- carry out regular maintenance programs on lifts and escalators
- use laptop computers in the field for tuning and diagnostic work in fault finding
- find the causes of faults in motors, brakes, switches and electrical and electronic control systems
- repair hydraulic or mechanical brakes by adjusting or replacing valves, ratchets, seals and brake linings.

Lift electricians working on installation and modernisation projects generally work in teams on building construction sites. In these instances they work closely with building and other specialist tradespeople.

An experienced lift electrician is able to perform more complex work functions and tasks such as adjusting and tuning lifts, to make sure they work safely and efficiently.

Lift electricians are required by state and territory government regulations to wear protective clothing, including a safety helmet, goggles, gloves, shield, spats, and safety shoes or boots.

#### Personal Requirements

- enjoy technical work
- physically fit and normal colour vision
- able to work at heights and in confined spaces
- good communication skills
- good interpersonal skills
- aptitude in mechanical and electrical reasoning
- able to work independently or as part of a team.

#### Education and Training

To become a lift electrician you usually have to complete an apprenticeship in Electrotechnology Electrician. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Modern lifts are controlled by computers and complex electronic systems. As a result, there is an increasing need for lift electricians to have a knowledge of electronics.

After completing your apprenticeship and following relevant practical experience, you can apply for an electrician licence.

#### Employment Opportunities

Lift electricians are employed by companies which require specialised electrical and mechanical work to install, maintain, modernise, service and repair lifts, escalators and moving walk systems.

Maintenance and repair is an ongoing source of work. Installation jobs depend on the construction of new buildings.

Job opportunities depend on the level of multistorey construction activity, changes to building regulations and replacement or repair requirements.

#### For Further Information

- EE-Oz Training Standards 🌐 www.ee-oz.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au
- National Electrical and Communications Association  
☎ (02) 9439 8523 ✉ necanat@neca.asn.au  
🌐 www.neca.asn.au

#### Related Jobs

Electrician (p 160).

## Light Engine Mechanic

Also known as Light Engine Technician, Outdoor Power Equipment Mechanic and Mechanic.

Light engine mechanics test, service and repair small engines and parts in motorcycles, boats and other small engine-powered equipment such as chainsaws, brushcutters, lawnmowers, pumps and stationary engines.

Light engine mechanics may perform the following tasks:

- work out mechanical and electrical faults by discussion with users, listening to engines and using specialised testing equipment
- take apart faulty engine assemblies, check parts using precision measuring equipment and refer to workshop manuals
- clean, lubricate and tune engines to make them run properly
- repair damaged or faulty parts by straightening, welding, machining or hand making new metal parts
- repair and adjust electrical faults
- remove small dents in panels, spray paint and do minor trim repairs
- set up and water-test outboard motors.

Light engine mechanics work in workshops and garages. Protective clothing is usually worn.

#### Specialisations

**Lawn-mower Mechanic** - diagnoses faults and performs necessary repairs on lawn-mowers and related equipment.

**Outboard Motor Mechanic** - diagnoses faults and performs necessary repairs on boat engines.

#### Personal Requirements

- enjoy practical and manual work
- physically fit
- normal eyesight and hearing
- good at technical activities
- problem-solving skills



- able to read and interpret technical information from service manuals
- no skin allergies or reactions to grease, oil or petrol.

#### Education and Training

To become a light engine mechanic you usually have to complete an apprenticeship in Automotive Mechanical Technology, Marine, or Outdoor Power Equipment. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Employees of franchised dealerships usually receive training in the service and repair of machines from their manufacturer.

#### Employment Opportunities

Light engine mechanics are employed by outboard engine firms, chainsaw dealers and lawnmower repair firms. They may also run their own businesses. Career opportunities include field service, supervision, sales, management and teaching.

Competition for available apprenticeships is very strong.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ manager@atv.org.au 🌐 www.atv.org.au
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ vacc@vacc.com.au 🌐 www.vacc.com.au

#### Related Jobs

Automotive Parts Interpreter (p 82); Brake Mechanic (p 92); Engine Reconditioner (p 163); Light Vehicle Motor Mechanic (p 250); Textile Mechanic (p 402).

## Light Vehicle Motor Mechanic

Also known as Automotive Technician, Motor Mechanic, Vehicle Mechanic, Car Mechanic and Mechanic.

Light vehicle motor mechanics service, repair and overhaul the mechanical parts of motor vehicles such as the engine, the transmission (clutch, gear box and differential), and the suspension systems (springs, steering, brakes, wheels and tyres).

Light vehicle motor mechanics may perform the following tasks:

- discuss problems with car drivers or vehicle operators to discover faults
- listen to engines, fit and operate special test equipment and test drive vehicles
- repair or replace worn or faulty parts by removing assemblies such as engines, transmissions, differentials or steering gear; dismantling them and checking parts, referring to manuals as necessary
- reassemble, test, clean and adjust repaired or replaced parts or assemblies, using various instruments to make sure they are working properly and putting them back into the vehicle
- tune engines using special electronic equipment and make fine adjustments (e.g. to carburettors) for smoother running
- carry out minor body repairs and minor trim repairs
- diagnose, repair and replace engine management/fuel injection components
- use oxy, electric, TIG and MIG welders

- test and repair electrical systems such as lighting, instrumentation, ignition and electronic fuel injection
- inspect vehicles and issue roadworthiness certificates or list the work required before a certificate can be issued.

Light vehicle motor mechanics may specialise as Automotive Airconditioning Fitters or Brake Mechanics. For more details, see separate entries for these occupations. They may also specialise as breakdown service patrol officers who give emergency mechanical assistance to members of an automobile association.

Light vehicle motor mechanics work mainly in workshops and wear protective clothing. They need to keep up with changes in motor industry technology.

With the changes in automotive technology, there are now more electronic controls and computers fitted to vehicles. As a result, light vehicle motor mechanics are becoming more specialised in their areas of work.

Light vehicle motor mechanics may progress to positions such as service manager, service adviser, technical sales representative, technical officer or diagnostic specialist.

#### Specialisation

**Motorcycle Mechanic** - diagnoses faults and performs necessary repairs motorcycles.

#### Personal Requirements

- enjoy practical and manual activities
- able to work with hand tools
- good at technical activities
- problem-solving skills
- physically fit
- normal eyesight and hearing
- drivers licence essential.

#### Education and Training

To become a light vehicle motor mechanic you usually have to complete an apprenticeship in Automotive Mechanical Technology. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Motor mechanics are employed mainly by motor vehicle dealers, repairers and service stations. They also work for authorities concerned with defence, communications, energy supply, public works and transport, and for private firms with large fleets of vehicles.

Motor mechanics working for large private firms service fleet vehicles, and those working for specialist firms service a particular part or make of vehicle. Some work in the testing sections of vehicle manufacturing firms.

Some mechanics establish their own businesses. Promotion to supervisory positions is possible in large workshops.

There is strong competition for available apprenticeships.



### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

### Related Jobs

Army Soldier - Technician (p 74); Automotive Airconditioning Fitter (p 81); Automotive Electrician (p 81); Automotive Parts Interpreter (p 82); Bicycle Technician (p 87); Brake Mechanic (p 92); Engine Reconditioner (p 163); Exhaust Fitter and Repairer (p 170); Heavy Vehicle Motor Mechanic (p 212); Light Engine Mechanic (p 249); Marine Engineer (p 255); Navy Technical Sailor (p 293); Radiator Repairer (p 344); Refrigeration and Airconditioning Mechanic (p 351); Service Station Attendant (p 366); Tyre Fitter and Repairer (p 421); Windscreens Fitter (p 437).

## Local Government Inspector

Also known as Parking Inspector/Officer, Local Laws Officer, Traffic Officer, Ranger - Local Council and Animal Management Officer.

Local government inspectors are responsible for enforcing various council by-laws, parking and traffic regulations and provisions contained in the Local Government Act and other legislation enforced by councils.

Inspectors may perform the following tasks:

- talk with people who dispute council actions
- issue notices to cut back or remove plant growth that overhangs footpaths and streets, as well as undergrowth from premises
- issue notices to people found littering
- patrol streets and parking areas to check that vehicles are legally parked (e.g. have not exceeded maximum parking times)
- issue notices to people parking illegally
- provide information to the police on stolen or abandoned vehicles
- issue notices to people in violation of environmental protection regulations (e.g. lighting an incinerator outside specified times or illegally burning substances such as rubber)
- catch stray and unregistered dogs and, if possible, notify owners
- follow up complaints, conduct interviews and issue penalty notices to dog owners who are in violation of the various acts and by-laws
- keep records of issued notices and payment of penalties
- attend court to give evidence in support of any prosecutions
- give timely and courteous advice to the community.

With experience and sometimes further training, inspectors may progress to the position of chief inspector.

Duties performed by inspectors vary among councils depending on where the council is and the inspector's experience and training. For example, an inspector employed by a coastal council is likely to perform duties relating to provisions contained in the Coastal Protection and Boating Acts. In some councils, inspectors perform both traffic and general inspection duties.

Inspectors mainly work outdoors without direct supervision and may be required to wear a uniform. They may be required to work some

evenings, weekends and public holidays, overtime or shifts. Inspectors have a considerable amount of contact with the public.

### Specialisation

**Compliance Officer (Local Government)** - performs site inspections, investigates and reports on new and existing land use and building activities, and resolves complaints. They liaise with solicitors, developers, property owners and occupiers to achieve compliance with local government legislation. Compliance officers need to be able to communicate effectively and have a broad skills and knowledge base.

### Personal Requirements

- enjoy working outdoors
- willing to work outdoors in all types of weather
- able to deal politely and, at times, firmly with members of the public
- good communication and conflict resolution skills
- maturity and confidence
- initiative, discretion and patience
- physically fit.

### Education and Training

You can work as a local government inspector without formal qualifications. You will probably get some informal training on the job.

You can also become a local government inspector through a traineeship in Local Government (Health and Environment/Regulatory Services). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

To work as a local government inspector you may need to pass a police check and medical assessment. You may also need a drivers licence for cars and motorcycles. Contact your local council for information.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Local Government Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

In Victoria, inspectors are employed by metropolitan and country local government authorities.

Employment opportunities include full time, part time and casual work. Available positions are advertised in local newspapers and on council websites.

### For Further Information

- Australian Services Union National Office ☎ (02) 9342 1400  
✉ [asunatm@asu.asn.au](mailto:asunatm@asu.asn.au) 🌐 [www.asu.asn.au](http://www.asu.asn.au)
- Government Skills Australia 🌐 [www.governmentskills.com.au](http://www.governmentskills.com.au)

### Related Jobs

Clerical Officer - Local Government (p 120); Park Ranger (p 309); Public Servant - State Government (p 341); Trade Measurement Officer (p 411).

## Logistics Clerk

Also known as Purchasing and Supply Logistics Clerk.

Logistic clerks record and coordinate the flow of work and materials between departments, examine orders for goods, and prepare production schedules.



Logistic clerks may perform the following tasks:

- requisition supplies from stock and send orders to production departments and other firms
- confirm completion of orders and compliance with details specified
- receive and check purchase requests against inventory records and stock on hand
- examine orders and compile data for production schedules
- check inventories and prepare delivery schedules
- investigate and identify supply sources and prepare and process purchase orders
- count incoming stock and reconcile it with requisitions
- update inventory and stock location records.

#### Personal Requirements

- enjoy clerical and administrative activities
- good numeracy skills
- a methodical approach to work
- good communication skills
- attention to detail.

#### Education and Training

To become a logistics clerk you usually have to complete a traineeship in Transport and Logistics (Logistics). Entry requirements may vary, but employers generally require Year 10. Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You can also become a logistics clerk through a certificate or diploma in logistics. Entry to this occupation may be improved if you have a business degree with a major in transport and logistics, operations management or a related field. Entry to the certificate courses below usually requires at least Year 12. Entry to the diploma courses usually requires completion of Year 12/VCE. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

#### Certificate Courses

*Sunraysia Institute of TAFE - Mildura, Robinvale and Swan Hill Campuses:*

Certificate III in Transport and Logistics (Logistics Operations)

*Wodonga Institute of TAFE - Wodonga Campus:*

Certificate III in Transport and Logistics (Logistics Operations)

*University of Ballarat (TAFE Division) - SMB Ballarat Campus:*

Certificate IV in Transport and Logistics - Logistics

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Certificate IV in Logistics and Supply Chain Principles

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Logistics

#### Degree Courses

*La Trobe University - Albury-Wodonga Campus:*

Bachelor of Business, majoring in logistics, 3 years full time or equivalent

*RMIT University - City Campus:*

Bachelor of Business (Logistics and Supply Chain Management), 3 years full time or equivalent

Bachelor of Business (Management), majoring in logistics, 3 years full time or equivalent

*Victoria University - City Flinders Campus:*

Bachelor of Business (Global Logistics and Transport), 3 years full time or equivalent

#### Employment Opportunities

Logistics clerks are employed by firms involved in the movement of goods. These include shipping agents, import/export companies, freight forwarding and storage companies, and road haulage firms. Wholesalers and large manufacturing firms may also employ logistics clerks.

#### For Further Information

- Chartered Institute of Logistics and Transport ☎ 1300 681 134  
✉ [admin@cilta.com.au](mailto:admin@cilta.com.au) 🌐 [www.cilta.com.au](http://www.cilta.com.au)
- Logistics Association of Australia ☎ (02) 9635 3422  
✉ [admin@laa.asn.au](mailto:admin@laa.asn.au) 🌐 [www.laa.asn.au](http://www.laa.asn.au)
- Supply Chain and Logistics Association of Australia  
☎ 1300 364 160 🌐 [www.sclaa.com.au](http://www.sclaa.com.au)
- Transport and Logistics Industry Skills Council  
🌐 [www.tlisc.com.au](http://www.tlisc.com.au)

#### Related Jobs

Accounts Clerk (p 50); Administrative Assistant (p 54); Customs Broker (p 139); Inventory and Supply Officer (p 235); Office Administrator (p 300); Records and Information Manager (p 347); Storeperson (p 386); Transport Administrator (p 416); Transport Clerk (p 417).

## M

### Machine Operator (Non-metal products)

Operators in non-metallic mineral products industries operate plant machinery and equipment to produce ceramic, clay, glass and concrete products such as bricks, tiles, pottery, cement, lime, paving blocks and glassware.

Machine operators (non-metal products) may perform the following tasks:

- weigh, measure and mix ingredients
- clean plant areas
- clean and lubricate equipment
- operate machines to combine and process ingredients or finish products
- monitor machine operations and adjust pressure, temperature, tension and other controls to ensure products match specifications
- collect samples for laboratory analysis
- measure and test products
- weigh and package products.

#### Specialisations

**Clay, Concrete and Stone Machine Operator** - uses machines to manufacture bricks, tiles, pipes, building blocks, railway sleepers, structural beams, facing stones, porcelain, pottery ware and cast products.

**Glass Production Worker** - operates and controls machines to make molten glass, and press or blow it into moulds to form or shape glassware products (e.g. bottles, jars and drinking glasses) as well as making insulation and fibreglass products.

**Kiln Operator - Ceramics** - uses kilns or ovens to fire ceramics, or to dry and season timber and other wood products. They control the



temperature, heating times and ventilation in the kilns and may also carry out inspections of the equipment to maintain performance.

#### Personal Requirements

- enjoy practical and manual work
- aptitude for problem solving
- mechanical aptitude
- able to multi-task
- able to work as part of a team
- safety conscious.

#### Education and Training

You can work as a machine operator without formal qualifications. You will probably get some informal training on the job.

You can also become a machine operator through a traineeship in Manufactured Mineral Products. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Manufactured Mineral Products Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Machine operators are employed by manufacturers of bricks, ceramic tiles, pottery, terracotta roof tiles and wood products. Employment can also be found with foundries and glass or metal manufacturers. Promotion to team leader is possible for experienced operators.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Chemical Plant Operator (p 111); Heat Treater (p 211); Petroleum and Gas Plant Operator (p 314); Power Generation Plant Operator (p 329); Wood Machinist (p 439).

## Make-up Artist

Make-up artists apply make-up to fashion and photographic models, actors and other performers involved in stage, film and television productions, as well as brides and other clients for special occasions.

Make-up artists may perform the following tasks:

- prepare the skin for make-up application and remove make-up as required
- demonstrate cosmetic products to clients
- instruct clients about make-up application
- apply a wide variety of professional make-up products
- design wigs, beards, masks and 'prosthetics' (artificial body parts) and apply them to achieve an appropriate character appearance
- use make-up to produce effects such as ageing, illness, scars and bruising
- alter or maintain make-up during productions to ensure the continuity of a performer's appearance
- advise hairdressers on the hairstyle required for character parts.

#### Personal Requirements

- artistic ability
- good colour perception
- patience and tact
- good communication skills

- good hand-eye coordination
- able to work under pressure.

#### Education and Training

You can work as a make-up artist without formal qualifications. You will probably get some informal training on the job through experience in beauty salons, cosmetic companies or amateur theatrical companies. However, there are courses available that may improve your chances of gaining employment.

You can also become a make-up artist through a traineeship in Makeup Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Bendigo Regional Institute of TAFE - Bendigo Campus:*

Certificate II in Make-up Services

*Box Hill Institute of TAFE - Elgar Campus:*

Certificate II in Make-up Services

*Chisholm Institute of TAFE - Dandenong and Frankston Campuses:*

Certificate II in Make-up Services

*Gordon Institute of TAFE - Geelong City Campus:*

Certificate II in Make-up Services

*Gordon Institute of TAFE - Geelong City Campus:*

Certificate II in Retail Cosmetic Services

*Goulburn Ovens Institute of TAFE - Wangaratta and Shepparton Campuses:*

Certificate II in Retail Cosmetic Services

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Beauty or Screen and Media or Film, TV and Radio Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Make-up artists are employed in the film, stage and television industries. They may also work on photographic shoots, promotions, fashion parades and in the make-up and cosmetic retailing industry. They are often self-employed and work freelance.

Competition for jobs is strong and interstate and/or overseas experience is often needed to enhance employment opportunities.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Service Skills Australia ☎ [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Beauty Therapist (p 85); Body Artist (p 90); Hairdresser (p 208); Nail Technician (p 286); Theatrical Costume Maker and Designer (p 404).

## Management Consultant

Management consultants study the procedures and systems used in an organisation to assess how individuals and the organisation as a whole can best operate.

Management consultants may perform the following tasks:

- gather information on the function of each area within an organisation and the specific duties undertaken by each individual, by talking with managers or supervisors and interviewing other staff



- assess the types of tasks undertaken in each section, the methods or systems used, the length of time taken for an individual to complete a task and any problems involved in undertaking the task
- consult internal training manuals, files and job descriptions to obtain additional information
- study data such as statistical records, reports and organisational charts
- identify problem areas and find solutions by considering alternatives, taking into account the benefits and costs of any recommendations
- write detailed reports and provide statistical evidence to support their conclusions and recommendations
- assist in the implementation of new systems
- talk to experts in other fields when introducing new equipment such as computers.

Management consultancy work is sometimes carried out by people who are employed in another capacity, such as engineers, personnel workers, technicians, computer programmers or systems analysts.

When assessing an organisation's systems, they may have to work at that organisation's premises.

#### Personal Requirements

- able to analyse and solve problems
- able to think logically
- organisational skills
- good oral and written communication skills
- tact and discretion
- interested in people, process and resource management.

#### Education and Training

To become a management consultant you usually have to study commerce or business at university with a major or minor in management. You may also consider courses with majors in business management, business administration, human resource management or economics. Degrees in these areas are available at most universities in Victoria. Check institution handbooks for full details. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

#### Additional Information

If you wish to work in the manufacturing industry, degree courses in industrial, manufacturing and production engineering may be relevant.

#### Employment Opportunities

Management consultants may work with a consultancy firm, or may be self-employed. They may also find employment with government departments and commercial or industrial organisations.

Most employment opportunities are in the metropolitan area.

Job opportunities depend on the level of business activity, industry restructuring, and advances in technology requiring changes to workplace practices and systems.

#### For Further Information

- Institute of Management Consultants (National Office)  
☎ 1800 800 719 (FREECALL) ✉ [imc@imc.org.au](mailto:imc@imc.org.au)  
🌐 [www.imc.org.au](http://www.imc.org.au)

#### Related Jobs

Accountant (p 47); Analyst (Information Technology) (p 65); Company Secretary (p 123); Human Resources Officer (p 219); Industrial

Engineer (p 224); Industrial Relations Officer (p 226); Occupational Health and Safety Officer (p 298).

## Launch your Management career from a strong foundation.

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**MONASH University**  
Business and Economics

### Marine Biologist

Marine biologists study the origin, structure, functions and behaviour of all forms of life in the sea and connected estuaries, rivers and lakes, their relationships with each other and how they are affected by environmental factors.

Marine biologists may perform the following tasks:

- estimate the numbers of marine organisms and analyse their population features
- observe communities of marine organisms and work out the factors influencing their structure
- assess and advise on the causes, effects, prevention and control of introduced species
- use numerical and statistical skills to design laboratory and field experiments
- design and carry out environmental impact assessments to work out whether change is caused by natural or human factors
- participate in studies aimed at predicting the effects of proposed developments
- develop long-term programs for monitoring environmental pollution
- manage fisheries
- provide information and recommendations for the development of marine conservation and harvesting policies and programs, including aquaculture
- write scientific reports on research and investigations, and prepare more general information for scientific, managerial, political and general audiences
- provide advice to managers, politicians, primary producers, health care workers and the general public
- provide research training for students and staff seeking entry to this field.

Marine biologists may be required to work both in the laboratory and for extended periods at sea or on shore-based field stations. Fieldwork may include working on commercial fishing vessels, small inshore vessels or scuba diving.

It should also be noted that much of the work of many marine biologists involves office work, research, writing of reports and long hours in laboratories. Very few graduates get the glamorous job of swimming with dolphins and whales.

#### Specialisation

**Marine Ecologist** - studies the inter-relationships between marine organisms and their environment.



### Personal Requirements

- interest in the marine environment and its inhabitants
- analytical and problem solving ability
- good written communication and mathematics skills
- able to work as part of a team.

### Education and Training

To become a marine biologist you usually have to study science or applied science at university with a major in marine biology or marine science. You may also consider major streams that emphasise marine biology, such as aquaculture and environmental biology. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, environmental studies, geography, mathematics, biology, chemistry, psychology and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Deakin University - Warrnambool Campus:

Bachelor of Environmental Science (Marine Biology), 3 years full time or equivalent

##### Monash University - Clayton Campus:

Bachelor of Science, majoring in marine biology, 3 years full time or equivalent

##### University of Melbourne - Parkville Campus:

Bachelor of Science, majoring in marine biology, 3 years full time or equivalent

### Employment Opportunities

Marine biologists are employed by state, territory and federal government departments such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), universities and museums. Some marine biologists also work in the aquaculture and fisheries industries or in environmental consulting firms.

Job opportunities depend upon the level of funding for marine research from governments and private industry, the occurrence of marine ecological problems, and community awareness of environmental and conservation issues.

#### For Further Information

- Australian Institute of Marine Science (AIMS) ☎ (07) 4753 4444  
🌐 [www.aims.gov.au](http://www.aims.gov.au)
- Australian Marine Sciences Association ☎ (07) 5484 1179  
✉ [treasurer@amsa.asn.au](mailto:treasurer@amsa.asn.au) 🌐 [www.amsa.asn.au](http://www.amsa.asn.au)
- CSIRO Marine and Atmospheric Research ☎ (03) 6232 5222  
🌐 [www.cmar.csiro.au](http://www.cmar.csiro.au)
- Marine Discovery Centre - Department of Primary Industries  
☎ (03) 5258 3344 ✉ [marine.discovery@dpi.vic.gov.au](mailto:marine.discovery@dpi.vic.gov.au)  
🌐 [www.dpi.vic.gov.au](http://www.dpi.vic.gov.au)

#### Related Jobs

Biotechnologist (p 89); Botanist (p 91); Environmental Scientist (p 169); Fisheries Officer (p 184); Microbiologist (p 274); Pharmacologist (p 316); Toxicologist (p 410); Zoologist (p 443).

## Marine Engineer

Also known as Offshore Engineer and Ship's Engineer.

Marine engineers control the installation, operation and maintenance of machinery and equipment on ships and offshore structures.

Marine engineers work in the engine departments of cargo ships, dredges, offshore supply and drill vessels, floating production storage

and offtake facilities, oil tankers, passenger ships and tugs. They need to be familiar with various types of diesel, steam and gas turbine engines.

Marine engineers may perform the following tasks:

- ensure that the main engines and associated machinery, electrical, refrigeration, airconditioning and cargo-handling equipment on ships are operating efficiently
- monitor automatic data recording equipment, or record readings manually on ships without such equipment
- analyse the readings for trends and make adjustments to machinery operation as required
- carry out regular maintenance of the main engine and repair defective auxiliary equipment
- stand watch in the engine room at sea and in port
- ensure that vessel operations do not create pollution
- maintain engine room stores and record usage of parts and equipment
- supervise staff and carry out major maintenance work while the ship is in port
- be involved with the operation of small craft such as patrol boats, tugs, river ferries and port authority vessels.

Marine engineers may work onshore or at sea, or both. Those who work at sea may be away from home for long periods. They may work long shifts and be on call to work in emergencies. Engine rooms can be very noisy, hot and dirty. Physical exertion is required when repairing machinery.

### Personal Requirements

- enjoy technical and engineering activities
- enjoy machinery operation
- physically fit
- prepared to accept responsibility
- able to work as part of a team
- prepared to work for long periods at sea.

### Education and Training

There are a number of pathways to become a marine engineer. The two main ways are through an Engineer Traineeship or Engineering Cadetship. To become a Trainee Engineer you must complete an engineering trade approved by the Australian Maritime Safety Authority. A Trainee Engineer can become a marine engineer through completion of a Certificate of Safety Training, followed by at least 36 weeks qualifying sea service on board an appropriate vessel. An approved Training Record Book must be completed during the sea service.

A Trainee Engineer must also complete an approved training course leading to the award of a Diploma of Marine Engineering (Watchkeeper). On completion of the course, qualifying sea service and legislative requirements, the trainee will be examined by the Australian Maritime Safety Authority for an Engineer Watchkeeping Certificate of Competency. The trainee may then undertake an advanced diploma in marine engineering and gain further seagoing marine engineer qualifications.

To become an Engineer Cadet you must complete Year 12 and an Engineer Cadetship approved by the Australian Maritime Safety Authority. This requires the same initial training as an Engineer Trainee, plus completion of an Advanced Diploma of Transport and Distribution (Marine Engineering Class 2) and a minimum of 36 weeks approved workshop trade training.

Entry to the diploma courses usually requires Year 10. To get into the advanced diploma courses you usually have to gain your VCE. As



subjects can vary between institutions, you should contact your chosen institution for full details.

There are no suitable courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Additional Information

Applicants must also meet the medical health standard required for a seagoing career and pass the eyesight and colour vision tests required by the Australian Maritime Safety Authority.

#### Employment Opportunities

Marine engineers are employed by shipping companies, including general cargo, container, bulk carrier and tanker companies. Opportunities also exist in the offshore industry, such as on tugs and supply vessels, drilling platforms and government agencies operating dredges, tugs and other port maintenance craft.

Fully qualified marine engineers may be able to secure a range of shore-based positions, such as engineering superintendent or marine surveyor. They may also gain employment in the power plants of factories and power stations.

Australian Certificates of Competency may be internationally recognised.

#### For Further Information

- Australian Maritime Safety Authority (Head Office)  
☎ (02) 6279 5000 ✉ [marine.qualifications@amsa.gov.au](mailto:marine.qualifications@amsa.gov.au)  
🌐 [www.amsa.gov.au](http://www.amsa.gov.au)
- Careers at Sea 🌐 [www.careersatsea.com.au](http://www.careersatsea.com.au)
- Institute of Marine Engineering, Science and Technology  
☎ (02) 9546 4757 ✉ [execdirector.anzspac@imarest.net](mailto:execdirector.anzspac@imarest.net)  
🌐 [www.imarest.org](http://www.imarest.org)
- Australian Institute of Marine and Power Engineers  
(Victoria/Tasmania Branch) ☎ (03) 9699 1488  
🌐 [www.aimpe.asn.au](http://www.aimpe.asn.au)
- Australian Maritime Safety Authority (VIC) ☎ (03) 8612 6000  
✉ [melbourne@amsa.gov.au](mailto:melbourne@amsa.gov.au) 🌐 [www.amsa.gov.au](http://www.amsa.gov.au)

#### Related Jobs

Coxswain (p 135); Engineering Tradesperson - Mechanical (p 165); Integrated Rating (p 233); Light Vehicle Motor Mechanic (p 250); Marine Surveyor (p 256); Mechanical Engineering Associate (p 264); Naval Architect (p 290); Ship's Master (p 369); Ship's Officer (p 370).

## Marine Surveyor

Also known as Ship's Surveyor.

Marine surveyors carry out inspections of passenger and cargo ships, commercial charter craft, fishing vessels, recreational craft and yachts.

Marine surveyors may perform the following tasks:

- examine and approve design plans of hulls and equipment such as main propulsion engines, auxiliary boilers and turbines, electrical power generating plant, refrigeration and airconditioning plant and pumping systems
- inspect standards of construction and witness tests of materials
- inspect hulls, machinery and equipment during ship construction to ensure standards and legislative requirements are met
- conduct surveys throughout the ship's life to ensure standards are maintained
- perform inspections required by domestic statutes and international conventions

- witness tests and operation of emergency and safety machinery and equipment
- measure ships for tonnage and survey them for load line assignment
- attend court as an expert witness and assist in coronial enquiries
- investigate marine accidents.

#### Specialisations

**Classification Society Marine Surveyor** - inspects ships to make sure that ships, components and machinery are built according to the standards required for their class, and examines accident damage.

**Government Marine Surveyor** - inspects ships to make sure that ships, components and machinery meet crew and passenger safety regulations and construction standards. They may also assess and approve safety reports and plans as well as examine candidates for certificates of competency.

**Private Marine Surveyor** - examines ships and their cargoes, investigates accidents in port and at sea (e.g. oil spillages) and prepares accident reports for insurance purposes.

#### Personal Requirements

- enjoy the sea and maritime activities
- an inquisitive mind with attention to detail
- good written communication skills
- aptitude for using computers
- able to work with a variety of people.

#### Education and Training

To become a marine surveyor you usually have to complete a Diploma in Marine Industry Surveying. Entry to the diploma course usually requires you to gain your VCE with mathematics and physics.

Entry to this occupation may be improved if you have experience in another occupation such as Marine Engineer, Naval Architect, Ship's Officer or Shipwright. For details on these occupations see the separate entries.

The following course is only available through distance education with the Australian Maritime College at the University of Tasmania. Contact the institution and see the Learning Pathways section for more information.

#### Diploma Courses

*University of Tasmania - Australian Maritime College (Distance Education):*

Diploma of Marine Industry Surveying

#### Employment Opportunities

Marine surveyors work for port authorities, shipping companies, insurance companies, government agencies and classification societies. Private marine surveyors work for ship owners and operators, insurance companies, freight forwarders (companies that arrange for the transport of goods) and consignees (people who receive goods).

With the changing nature of the international shipping environment and technological advances, there is likely to be more emphasis on specialist maritime areas at the expense of the traditional marine surveyor.

Depending on the type of work, a marine surveyor could be asked to travel overseas to investigate causes of accidents or damage to cargoes.

#### For Further Information

- Australasian Institute of Marine Surveyors ☎ (07) 4972 6199  
✉ [info@roddsbaymaritime.com](mailto:info@roddsbaymaritime.com) 🌐 [www.aimsurveyors.com.au](http://www.aimsurveyors.com.au)
- Australian Maritime Safety Authority (VIC) ☎ (03) 8612 6000  
✉ [melbourne@amsa.gov.au](mailto:melbourne@amsa.gov.au) 🌐 [www.amsa.gov.au](http://www.amsa.gov.au)



### Related Jobs

Coxswain (p 135); Marine Engineer (p 255); Mechanical Engineer (p 263); Naval Architect (p 290); Ship's Officer (p 370); Shipwright (p 371).

## Market Researcher

Market researchers collect and analyse information to assist in marketing and to determine whether a demand exists for a particular product or service.

Market researchers may perform the following tasks:

- design questionnaires and select sample groups to survey
- collect facts from sources such as company records showing the total volume of sales, or from government statistics and information such as population census data
- arrange and analyse collected information
- interpret and predict current and future consumer trends, such as changes in tastes and lifestyles
- write reports on the results of research activities
- discuss information needs with clients
- identify specific consumer markets for clients.

### Specialisations

**Market Research Analyst** - determines the market for new products, develops advertising strategies and evaluates the best business sites for various types of commercial enterprises.

**Market Research Interviewer** - assists market researchers in collecting information by speaking with people face-to-face or over the telephone, and recording (on questionnaires or in reports) the answers or details given by interviewees about the market research subject.

### Personal Requirements

- able to analyse and interpret information
- enjoy statistics and computers
- good communication and interpersonal skills.

### Education and Training

To become a market researcher you usually have to study business or commerce at university with a major in marketing. It is also possible for graduates of statistics, psychology, sociology, economics, behavioural sciences or computer sciences to enter this occupation. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer business or commerce degree courses with majors in marketing. Degree courses are normally three years full time or equivalent.

### Additional Information

Graduates of marketing courses are eligible for membership to the Australian Marketing Institute or the Australian Market and Social Research Society (AMSRS).

### Employment Opportunities

Market researchers may work for organisations that make and market products such as cars, magazines, food, clothing, appliances and other consumer products. They may also work in radio and television networks. In recent years, government bodies have also made increasing use of market research services. There are also market research firms that offer their services on a consulting basis.

Market research graduates sometimes take up market research interviewing jobs in order to break into this field. It is common for market researchers to have to work in the evenings or on weekends.

### For Further Information

- Australian Market and Social Research Society (National Office)  
☎ (02) 9566 3100 or 1300 364 832 ✉ [amsrs@amsrs.com.au](mailto:amsrs@amsrs.com.au)  
🌐 [www.amsrs.com.au](http://www.amsrs.com.au)
- Australian Marketing Institute ☎ 1300 737 445  
✉ [membership@ami.org.au](mailto:membership@ami.org.au) 🌐 [www.ami.org.au](http://www.ami.org.au)

### Related Jobs

Advertising Account Executive (p 55); Economist (p 154); Marketing Officer (p 257); Psychologist (p 337); Public Relations Officer (p 339); Research Officer (p 353); Sales Representative (p 359); Sociologist (p 374); Statistician (p 383); Telemarketer (p 401).

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## Marketing Officer

Also known as Marketing Coordinator.

Marketing officers promote a company's or client's products or services. This can involve marketing existing products, developing new products to cater for consumer demand, or developing markets for new products or services.

Marketing officers may perform the following tasks:

- identify and analyse an organisation's strengths and weaknesses, and respond to opportunities and threats in the marketing environment
- set goals for market share and growth
- develop and implement appropriate strategies by selecting, segmenting and targeting markets, and promoting products and services to those markets
- make decisions regarding products, such as choosing labels or packaging
- work on developing new products
- work out an approach to pricing and set prices for products and services
- manage distribution channels such as shops and wholesalers
- make decisions regarding the distribution of products (such as taking orders, warehousing, stock control and transport), manage store image or undertake direct marketing
- develop plans for advertising, sales promotion, public relations, personal selling and sales management
- undertake marketing audits to monitor sales performance.

Marketing involves working with, and gaining the cooperation of, people in specialist areas such as technical experts, production managers, accountants and advertising agents.

Marketing officers may have to work in the evenings or on weekends, and may be required to travel for business.

### Specialisations

**Advertising Manager** - develops a company's advertising strategy, liaises with advertising agencies to create the company product or image, prepares budgets and develops promotional and sales support



materials. In larger organisations an advertising manager is responsible for a team of specialist staff.

**Brand/Product Manager** - markets a company's major brand and products. They determine the pricing of products and maintain and direct the product's image in the market. They decide which new products meet market trends and which need to be phased out.

**Electronic Commerce Manager** - coordinates and develops the marketing activities of a company over the internet, email and other electronic media, including online promotion, sales and communication.

**Marketing Manager** - coordinates the marketing activities of all areas of the company that are involved in delivering a product or service to a customer. In larger organisations the marketing manager may bring together a number of marketing functions or campaigns to create a corporate marketing plan.

**Marketing Service Manager** - provides sales support by fielding enquiries, taking orders and providing phone advice to customers. They also assist with exhibitions, prepare documentation for brochures and sales kits, and commission market research.

**Sales Manager** - plans and coordinates the activities of a sales team, controls product distribution, monitors budget achievement, trains and motivates personnel, and prepares forecasts.

Other specialist areas include marketing communications, direct marketing and telemarketing. Entire departments serve these functions in larger organisations.

#### Personal Requirements

- able to analyse and interpret information
- creative
- very good communication skills
- good organisational skills
- able to work independently or as part of a team.

#### Education and Training

To become a marketing officer you usually have to complete a diploma or degree with a major in marketing. Entry to the diploma course below usually requires completion of a Certificate IV in Marketing. To get into the degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

Most universities in Victoria offer business, commerce or economics degree courses with majors in marketing. Degree courses are normally 3 years full time or equivalent.

#### Diploma Courses

**TAFE Victoria** - various locations:

Diploma of Marketing

Advanced Diploma of Marketing (entry via diploma)

#### Additional Information

Graduates of marketing courses are eligible for membership of the Australian Marketing Institute or the Australian Market and Social Research Society.

#### Employment Opportunities

Marketing officers may be employed by companies that manufacture or distribute consumer or industrial goods, or companies that provide private business services. They may also work in advertising, promotions, insurance and banking organisations. Increasingly,

marketing officers are employed by government departments and enterprises.

Graduates can enter large organisations or manufacturing companies as management trainees. With experience, the career path typically leads from support roles to positions of product management, brand management, marketing management and general management. Marketing officers often progress to top management roles later in their careers.

Electronic commerce is a growing area within marketing so an understanding of this area is important. Skills in electronic commerce may be advantageous to finding employment.

People without specific qualifications may be able to enter marketing through retail, commercial sales, marketing services or by working as assistants to product or marketing managers.

#### For Further Information

- Australian Direct Marketing Association ☎ [www.adma.com.au](http://www.adma.com.au)
- Australian Market and Social Research Society (National Office)  
☎ (02) 9566 3100 or 1300 364 832 ✉ [amsrs@amsrs.com.au](mailto:amsrs@amsrs.com.au)  
☎ [www.amsrs.com.au](http://www.amsrs.com.au)
- Australian Marketing Institute ☎ 1300 737 445  
✉ [membership@ami.org.au](mailto:membership@ami.org.au) ☎ [www.ami.org.au](http://www.ami.org.au)

#### Related Jobs

Advertising Account Executive (p 55); Economist (p 154); Events Coordinator (p 170); Foreign Affairs and Trade Officer (p 191); Market Researcher (p 257); Psychologist (p 337); Public Relations Officer (p 339); Publisher (p 342); Sales Representative (p 359); Sociologist (p 374).

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## Massage Therapist

Also known as Masseur, Masseuse, Myotherapist and Soft Tissue Therapist.

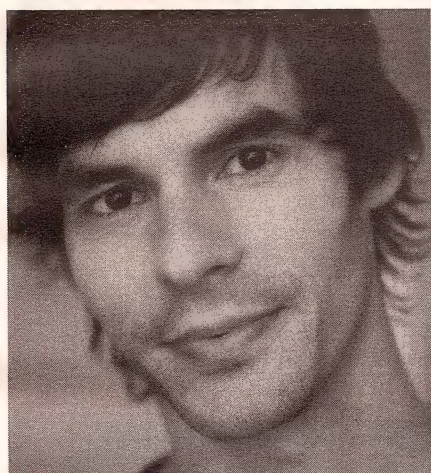
Massage therapists massage clients using oils and creams for relaxation and remedial purposes.

Massage therapists may perform the following tasks:

- massage the soft tissues of the human body, including muscles, tendons and ligaments, to assist healing
- use massage techniques to enhance relaxation and wellbeing
- use techniques such as muscle stretching to assist with recovery and to enhance muscle performance
- use finger pressure techniques in shiatsu, reflexology and other therapies.

Massage therapists generally work in four broad (sometimes overlapping) areas:





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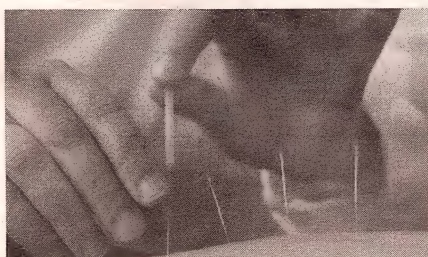
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**Remedial Massage** which is a paramedical massage treatment to assist in healing parts of the body that have been injured or left inactive due to age, illness or injury.

**Relaxation Massage** which combines massage techniques to promote relaxation, improve circulation, relieve muscle tension and increase range of movement.

**Sports Massage** which combines different massage techniques to enhance sports performance, recuperation, and to prevent injury. It can include pre-event, post-event and maintenance techniques.

**Oriental Massage** which uses a system of finger pressures along acupressure lines to release discomfort and re-balance energy (examples include Shiatsu and Tui Na).

Massage Therapists may specialise in one or more of the following techniques:

**Aromatherapy** which combines the therapeutic properties of essential oils with other massage techniques to promote health and wellbeing.

**Reflexology** which uses thumb and finger pressure on the reflex points (nerve endings) of the feet (which correspond to all areas of the body) for therapeutic and diagnostic purposes.

**Swedish Massage** which refers to a collection of techniques designed to relax muscles by applying pressure to them against deeper muscles and bones, and rubbing in the same direction as the flow of blood returning to the heart.

Massage therapists spend a lot of time standing. Although the work is physically demanding, it requires stamina rather than strength.

Massage therapists may travel between appointments to see clients at various establishments or in their homes. Freelance and self-employed therapists may work irregular hours or evenings to fit client schedules.

#### Personal Requirements

- physically fit and in good health
- a caring, positive attitude
- a genuine interest in helping clients overcome their physical problems.

#### Education and Training

To become a massage therapist you usually have to complete a certificate or diploma course in massage. Entry to the certificate courses usually requires at least Year 10. Entry to the diploma courses usually requires you to gain your Year 12/VCE. As subjects can vary between institutions, you should contact your chosen institution for full details. Applicants may also be required to attend an interview.

You can also become a massage therapist through a traineeship in Massage Therapy Practice. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Costs, duration and entry requirements may vary between courses. See the online entry for Massage Therapist at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

Certificate and diploma courses in massage are widely available and are offered by Registered Training Organisations, including TAFE. Contact your preferred institution for further details.

#### Additional Information

Massage therapy is not a registered health profession, but the Association of Remedial Masseurs and the Association of Massage

Therapists set professional standards for the industry. Practising massage therapists may be eligible for membership.

#### Employment Opportunities

Massage therapists may be employed in health and fitness clinics, sports clubs, gymnasiums and medical centres. They may also find employment with other health care practitioners such as chiropractors, physiotherapists and osteopaths. Self-employment may be possible by setting up a private practice or freelancing between establishments which have a demand for applied massage therapy. There has been an increase in employment opportunities in hospitals, particularly in palliative care.

An increase in demand for massage therapists is expected as chiropractors and homeopaths utilise massage therapy to complement their treatments. The field of sports injury treatment and injury prevention is a growth area. There are also opportunities for relaxation massage therapists to work at day spas, health retreats and holiday resorts.

#### For Further Information

- Association of Massage Therapists Ltd ☎ (02) 9517 9925  
✉ [message@amt.org.au](mailto:message@amt.org.au) 🌐 [www.amt.org.au](http://www.amt.org.au)
- Association of Remedial Masseurs ☎ (02) 8898 9094  
✉ [arm@remedialmasseurs.com.au](mailto:arm@remedialmasseurs.com.au)  
🌐 <http://remedialmasseurs.com.au>
- Australian Traditional Medicine Society ☎ (02) 9809 6800  
✉ [info@atms.com.au](mailto:info@atms.com.au) 🌐 [www.atms.com.au](http://www.atms.com.au)

#### Related Jobs

Acupuncturist (p 52); Chiropractor (p 114); Natural Therapist (p 288); Osteopath (p 305); Physiotherapist (p 319); Podiatrist (p 325).

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\*Eligibility criteria applies



## Materials Engineer

Materials engineers investigate the properties of metals, ceramics, polymers and other materials and develop and assess their commercial and engineering applications.

Materials engineers may perform the following tasks:

- study the structure and properties of metals and other materials
- develop methods for processing minerals through to manufactured materials
- investigate methods for shaping and fabricating materials, and study methods for joining materials, improving existing materials and evaluating new ones
- participate in the design of products using advanced materials
- investigate material failures
- study ways to extend the life of materials
- establish procedures and methods to protect materials against deterioration and to assess their durability
- study possible improvements to production methods, report on the nature and uses of materials and advise on manufacturing techniques and quality control systems.

Materials engineers may specialise in metals, ceramics, polymers, plastics or composites.

Materials engineers frequently work closely with other professionals, pooling expertise on particular projects. They may work in production plants, offices, and outdoors when involved in construction projects.

### Personal Requirements

- enjoy science, technical and engineering activities
- able to identify, analyse and solve problems
- able to work as part of a team
- good communication skills
- a capacity for creative thinking.

### Education and Training

To become a materials engineer you usually have to study engineering at university with a major in materials engineering. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics and chemistry are normally required. Contact the university for more information as requirements may change.

### Degree Courses

Monash University - Clayton Campus:

Bachelor of Engineering (Materials), 4 years full time or equivalent

### Additional Information

Graduates may be eligible to join Engineers Australia and/or Materials Australia.

### Employment Opportunities

Materials engineers find employment in industrial or government research organisations and in government agencies such as those associated with power generation, communication, defence, construction and transport. A wide range of manufacturing industries, including those concerned with the processing of minerals, plastics, rubbers, ceramics, paper, electronic devices and packaging also employ materials engineers.

There is also some opportunity for experienced materials engineers to become self-employed consultants.

### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au
- Materials Australia (National Office)  
🌐 www.materialsaustralia.com.au

### Related Jobs

Biomedical Engineer (p 89); Chemical Engineer (p 110); Mechanical Engineer (p 263); Metallurgical Technician (p 271); Metallurgist (p 271); Minerals Process Engineer (p 277); Naval Architect (p 290); Physicist (p 318).

## Mathematician

Mathematicians apply mathematical principles to solve problems in all areas of sciences, technology, social sciences, business, industry and commerce.

Mathematicians may perform the following tasks:

- apply geometry and calculus to design objects in fields such as architecture, computer graphics and robotics
- analyse statistics to find models for traffic flow, insurance risks, consumer research, market analysis and clinical trials
- develop models for financial markets and products for financial risk management



- analyse processes from chemical, mining or agricultural industries by translating them into mathematical models
- develop computer modelling for industrial design
- develop and improve mathematical models to describe natural phenomena, such as soil erosion, the weather, ocean currents or biological behaviour
- develop computer programs for use in mathematical modelling and problem solving
- design computer programs to make and break complex security codes, or investigate and develop schemes for information security
- carry out network analysis for the study of road systems, airline routes, transport and communication systems
- use linear programming for urban and regional planning
- engage in image and signal processing for astronomy, cartography, and medical and radar imaging
- analyse problems from the service, engineering or manufacturing sectors
- develop communications technology and information theory
- develop new mathematical relationships ranging across the areas of pure and applied mathematics, statistics, computing, operations research, commerce and industry
- teach mathematics in Australia or overseas.

#### Personal Requirements

- imagination
- enjoy mathematics
- analytical skill
- initiative
- perseverance
- able to work independently or as part of a team
- enjoy problem solving.

#### Education and Training

To become a mathematician you usually have to study mathematics at university. There are a number of different degrees within which you can study mathematics. These include arts, engineering and science. Mathematics can also be studied at some universities as part of a double degree with other courses such as law, medicine, actuarial studies, finance and engineering. These double degree courses are 4 to 7 years full time. Mathematics and statistics are closely related areas and many students combine study in both. Check institution handbooks for course details.

To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Degree courses in these areas are available at most universities in Victoria. Check institution handbooks for full details.

#### Additional Information

Examples of some interesting problems that can be solved by mathematicians can be seen by visiting the Australian Academy of Science NOVA website ([www.science.org.au/nova](http://www.science.org.au/nova)). The Australian Mathematical Society's website provides links to most mathematics departments in Australian universities. For more information on the kinds of jobs available, visit the International Centre of Excellence for Education in Mathematics website.

#### Employment Opportunities

Mathematicians are employed in a wide range of capacities such as scientists, top- and mid-level managers, executives and administrators, academics and research personnel in universities, teachers, computer systems analysts and developers, and in the finance sector. They are in demand in ever-increasing areas where

mathematical models are used, for example, insurance models in the finance industry, econometric models in government departments and models related to the physical sciences. The Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Defence Science and Technology Organisation and other government bodies are also employers of mathematicians. Additionally, there is nearly always a demand for teachers of mathematics.

#### For Further Information

- Australian Mathematical Society Inc (Business Office)  
☎ (02) 6125 8922 ✉ [office@austms.org.au](mailto:office@austms.org.au)  
🌐 [www.austms.org.au](http://www.austms.org.au)
- Australian Mathematical Sciences Institute (AMSI)  
☎ (03) 8344 1777 ✉ [jchantry@amsi.org.au](mailto:jchantry@amsi.org.au)  
🌐 [www.amsi.org.au](http://www.amsi.org.au)
- Statistical Society of Australia ☎ (02) 6251 3647  
✉ [eo@statsoc.org.au](mailto:eo@statsoc.org.au) 🌐 [www.statsoc.org.au](http://www.statsoc.org.au)

#### Related Jobs

Accountant (p 47); Actuary (p 52); Analyst (Information Technology) (p 65); Astronomer (p 77); Bank Officer (p 83); Business Systems Analyst (p 98); Economist (p 154); Electrical Engineer (p 156); Geophysicist (p 204); Mechanical Engineer (p 263); Meteorologist (p 273); Mining Engineer (p 278); Physicist (p 318); Programmer (Information Technology) (p 335); Statistician (p 383); Teacher - Primary (p 396); Teacher - Secondary (p 397).

## Meat Processing Worker

Also known as Abattoir Worker and Meat Worker.

Meat processing workers perform a wide range of tasks including handling, slaughtering and processing livestock, operating processing and rendering equipment, despatching products and keeping records.

Meat processing workers may perform the following tasks:

- move and manage animals before they are killed
- stun animals using an electrical device or cartridge gun
- kill animals while they are unconscious
- remove hides/pelts and internal organs
- use saws to split the carcasses
- trim carcasses
- move carcasses to chillers and freezers
- break carcasses by boning and slicing meat cuts for sale and further processing
- pack the boned and sliced meat into cartons
- process hides and pelts
- process by-products
- load meat products into trucks.

Some abattoirs have meat-packaging operations for export.

Meat processing workers stand for most of the day. Hands and clothes may become soiled with blood or fat, but health regulations make sure that meat processing workers work under hygienic conditions. The areas in which they work are usually large, well lit and ventilated and kept very clean. Employers usually provide a laundry service for uniforms.

#### Specialisations

**Boner and Slicer** - breaks down carcasses by removing bones and slicing meat ready for sale or further processing.

**Renderer** - operates processing plants to produce meat meal, fertilisers and tallow.

**Slaughterer** - kills the animals and removes the internal organs and hides.



### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- physically fit
- able to work safely.

### Education and Training

You can work as a meat processing worker without formal qualifications. You will probably get some informal training on the job.

You can also become a meat processing worker through a traineeship in Meat Processing (Abattoirs). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Australian Meat Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Employment opportunities may be seasonal due to fluctuations in livestock production.

### For Further Information

- Australian Meat Industry Council ☎ (02) 9086 2200  
✉ admin@amic.org.au 🌐 www.amic.org.au
- National Meat Industry Training Advisory Council (MINTRAC)  
☎ (02) 9819 6699 or 1800 817 462 (FREECALL)  
✉ mintrac@mintrac.com.au 🌐 www.mintrac.com.au

### Related Jobs

Butcher (p 99); Food Process Worker (p 188); Primary Products Inspector (p 330); Quality Assurance Inspector (p 342); Smallgoods Maker (p 373).



**MINTRAC**  
1800 817 462  
www.mintrac.com.au

**THERE ARE  
stacks of Careers  
in the MEAT INDUSTRY**



## Mechanical Engineer

Mechanical engineers plan, design and oversee the development, installation, operation and maintenance of machinery. They conduct research to solve practical engineering problems and improve efficiency.

Mechanical engineers may perform the following tasks:

- design new machines, equipment or systems taking into account cost, availability of materials, strength and maintenance requirements
- consider the appearance of the designs as well as the impact on the user and on the environment
- carry out research in the use of different types of fuel and energy, materials handling, heating and cooling processes, the storage and pumping of liquids and gases, and environmental controls
- use Computer-Aided Design (CAD) to assist in design and drawing
- undertake the design and construction of resource development projects such as offshore platforms, onshore gas plants and iron ore mining facilities

- supervise the operation of manufacturing process plants such as vehicle and electrical appliance production plants, coal handling installations, power stations and sewerage and water supply pumping stations
- specify, select, install and manage the maintenance of factory production and machinery
- set up work control systems (e.g. testing of equipment) to make sure that standards of performance, quality, cost and safety are met
- act as consultants, carrying out studies about possible changes or improvements and estimating costs of products for clients.

Mechanical engineers may specialise in areas such as research and development, engineering design, production, plant and maintenance.

Mechanical engineers frequently work closely with other professionals, at times pooling expertise on particular projects (e.g. with architects in designing airconditioning plants).

Mechanical engineers may work in production plants, in offices and outdoors when involved in construction projects.

Mechanical engineers are involved in a wide range of industries including aviation, power generation, manufacturing, refrigeration and airconditioning, transportation and mechanical handling.

### Specialisation

**Manufacturing Systems Engineer** - designs and improves systems and equipment that complete tasks accurately and change raw materials into products with the smallest wastage of time, materials and energy.

### Personal Requirements

- enjoy technical and engineering activities
- willing to adhere to safety requirements
- able to identify, analyse and solve problems
- good oral and written communication skills
- enjoy computing and technical design
- practical and creative
- able to work independently or as part of a team
- able to accept responsibility.

### Education and Training

To become a mechanical engineer you usually have to study engineering at university with a major in mechanical engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics and chemistry are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

#### Deakin University - Geelong Campus and Distance Education:

Bachelor of Engineering, majoring in engineering (mechanical),  
4 years full time or equivalent

#### Monash University - Clayton Campus:

Bachelor of Engineering, majoring in engineering (mechanical),  
4 years full time or equivalent

#### RMIT University - Bundoora and City Campuses:

Bachelor of Engineering (Mechanical Engineering), 4 years full time  
(first 2 years at City Campus, final 2 years at Bundoora)

#### Swinburne University of Technology - Hawthorn Campus:

Bachelor of Engineering (Mechanical Engineering), 4 years full time  
plus 1 optional paid industry-based learning year



#### *University of Melbourne - Parkville Campus:*

Bachelor of Science, majoring in engineering (mechanical) or mechanical systems, 3 years full time or equivalent, followed by the Master of Engineering (Mechanical), 2 years full time

#### *Victoria University - Footscray Park Campus:*

Bachelor of Engineering (Mechanical), 4 years full time

#### *Additional Information*

Mechanical engineering graduates may be eligible for membership of Engineers Australia.

#### *Employment Opportunities*

Mechanical engineers work in private engineering firms and in the building, minerals, construction, power, manufacturing and processing industries. Universities and federal, state and local government agencies also offer opportunities for employment. Some also find employment with consultancy firms, while others are self-employed.

Job opportunities depend on activity in the mining, manufacturing and construction industries.

#### *For Further Information*

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au
- The Association of Professional Engineers, Scientists and Managers, Australia ☎ (03) 9695 8800  
✉ info@apesma.asn.au 🌐 www.apesma.asn.au
- Department of Sustainability and Environment ☎ 13 61 86  
✉ customer.service@dse.vic.gov.au 🌐 www.dse.vic.gov.au

#### *Related Jobs*

Aerospace Engineer (p 55); Agricultural Engineer (p 57); Chemical Engineer (p 110); Civil Engineer (p 116); Electrical Engineer (p 156); Industrial Designer (p 223); Industrial Engineer (p 224); Marine Surveyor (p 256); Materials Engineer (p 261); Mathematician (p 261); Mechanical Engineering Associate (p 264); Mechanical Engineering Technologist (p 265); Mechatronic Engineer (p 265); Naval Architect (p 290); Patent Examiner (p 312); Quality Assurance Inspector (p 342).

## **Mechanical Engineering Associate**

Also known as Engineering Associate (Mechanical), Mechanical Engineering Officer and Mechanical Engineering Technician.

Mechanical engineering associates assist mechanical engineers and engineering technologists in the design, manufacture, construction, operation and maintenance of machines, manufacturing equipment, mechanical installations and mechanical facilities.

Mechanical engineering associates usually have a range of duties carried out under the direction of mechanical engineers and technologists.

Mechanical engineering associates may perform the following tasks:

- collect and analyse data, carry out complex calculations and prepare diagrams
- organise and supervise the manufacture, operation and maintenance of plant machinery and equipment such as machinery, engines, airconditioning and other mechanical equipment
- assemble and install new or altered mechanical equipment, parts, machine tools and controls, and help to construct, maintain and repair engineering machinery
- perform or direct field or laboratory testing and analysis of results

- estimate material costs and quantities and machinery requirements
- produce designs, detailed drawings and documentation, manually or with the aid of Computer-Aided Design (CAD), under the direction of mechanical engineers and technologists
- make sure that designs and finished work comply with the specifications, regulations and contract
- select tools and equipment
- organise and supervise inspection and maintenance of machinery and plant.

Mechanical engineering associates may specialise in areas such as mechanical handling (involving cranes, lifts, conveyors and transfer lines), jigs and tools (associated with most manufacturing plants), building services (such as airconditioning, pipe and duct layouts) and consumer products (such as washing machines and general domestic appliances).

With further training and experience, it is possible to become a registered/fully qualified engineer.

Mechanical engineering associates work in offices, technical laboratories, workshops or on-site. They work in teams, usually reporting to engineers or technologists, supervising technicians and tradespeople.

#### *Personal Requirements*

- enjoy technical and engineering activities
- interested in machinery design and application
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work independently or as part of a team
- able to accept responsibility.

#### *Education and Training*

To become a mechanical engineering associate you usually have to complete an advanced diploma majoring in mechanical engineering or technology. Entry to the advanced diploma courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### *Diploma Courses*

*Chisholm Institute of TAFE - Dandenong and Frankston Campuses:*

Advanced Diploma of Engineering Technology (Robotics and Mechatronics) (entry via Diploma of Engineering)

*TAFE Victoria - various locations:*

Advanced Diploma of Engineering Technology (entry via Diploma of Engineering)

Advanced Diploma of Engineering Technology - Mechanical/Manufacturing

#### *Additional Information*

Graduates may be eligible for associate membership of Engineers Australia.

#### *Employment Opportunities*

Mechanical engineering associates are employed in the manufacturing industry as well as by architectural and technical (consulting engineering) services, and in the electricity, gas, water and minerals industries. Most work is located in the metropolitan area.

Firms vary in size from small operations to large government enterprises. Many people in this occupation work on a contract basis and can be very mobile. A major area of employment is engineering drafting.



There are opportunities for promotion to positions managing design teams or whole drawing offices. With ability and the completion of further courses of study, associates may diversify into other areas of production engineering and/or management.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
☎ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career ☎ [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) ☎ [www.miningcareers.com](http://www.miningcareers.com)

#### Related Jobs

Civil and Structural Engineering Associate (p 115); Electrical Engineering Associate (p 158); Industrial Engineering Technologist (p 225); Marine Engineer (p 255); Mechanical Engineer (p 263); Mechanical Engineering Technologist (p 265); Refrigeration and Airconditioning Draftsperson (p 350).

## Mechanical Engineering Technologist

Mechanical engineering technologists design, inspect, manage and test technologies, systems and procedures in mining, manufacturing or processing industries plants.

Mechanical engineering technologists may perform the following tasks:

- design engineering factories and equipment
- supervise the maintenance of factories and equipment
- apply testing and monitoring equipment to determine the condition of operating equipment
- use computers as tools for routine design and analysis
- prepare reports to engineering management
- analyse and interpret engineering information and data
- work with professional engineers to make sure the engineering plant is operating efficiently
- advise employers and clients on the application of new technologies.

With further training and experience, it is possible to become a professional engineer.

Mechanical engineering technologists work in offices, technical laboratories or workshops, or on site. They work in teams with engineers, technicians and tradespeople.

#### Personal Requirements

- enjoy technical and engineering activities
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work independently or as part of a team.

#### Education and Training

To become a mechanical engineering technologist you usually have to study engineering technology at university with a major in mechanical engineering. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

Mechanical engineering degrees are also available which offer appropriate training for entry to this occupation. See the Mechanical

Engineer entry for details of additional mechanical engineering courses available.

There are no suitable courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Additional Information

Graduates may be eligible for membership of Engineers Australia. Registration may be required. Contact Engineers Australia for further information.

#### Employment Opportunities

Mechanical engineering technologists work in the manufacturing, electricity, gas and water industries, and in architectural and technical services and consulting engineering firms. Most work is located in the metropolitan area.

Firms vary in size from small operations to large government enterprises. Many people work on a contract basis and may need to change their job and location often. A major area of employment is engineering drafting.

#### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
☎ [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career ☎ [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) ☎ [www.miningcareers.com](http://www.miningcareers.com)

#### Related Jobs

Mechanical Engineer (p 263); Mechanical Engineering Associate (p 264).

## Mechatronic Engineer

Mechatronic engineers design and maintain machinery with electronic and computer control systems, such as aircraft, robots, motor vehicles, cameras, power generators and mining and chemical plant machinery.

Mechatronic engineers may perform the following tasks:

- design, develop, maintain and manage high-technology engineering systems for the automation of industrial tasks
- apply mechatronic or automated solutions to the transfer of material, components or finished goods
- apply advanced electronic control systems, which are usually computer-driven
- design and assist in the manufacture of consumer products, such as cameras and video recorders
- apply electronic and mechanical processes and computers to tasks where the use of human labour may be dangerous (e.g. underwater exploration, mining or forestry)
- carry out studies into the feasibility, cost implications and performance benefits of new mechatronic equipment.

Workplaces range from laboratories and processing plants to engineering design offices.

#### Personal Requirements

- enjoy technical and engineering activities
- good communication skills
- able to work as part of a team
- able to think creatively and problem solve
- interested in mechanical equipment, such as robotic and production equipment, physics and mathematics.



### Education and Training

To become a mechatronic engineer you usually have to study engineering at university with a major in mechatronics. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, chemistry and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

Related degree courses in electronics, electrical or mechanical engineering may also be appropriate. Degrees in these areas are offered by most universities in Victoria.

#### Degree Courses

##### *Deakin University - Geelong Campus and Distance Education:*

Bachelor of Engineering, majoring in mechatronics design, 4 years full time or equivalent

##### *Monash University - Clayton Campus:*

Bachelor of Mechatronics Engineering, 4 years full time or equivalent

##### *RMIT University - City Campus:*

Bachelor of Engineering (Electrical Engineering), majoring in mechatronics, 4 years full time or equivalent

##### *RMIT University - City and Bundoora Campuses:*

Bachelor of Engineering (Mechanical Engineering), majoring in mechatronics, 4 years full time or equivalent (first two years at City Campus, final two years at Bundoora Campus)

##### *Swinburne University of Technology - Hawthorn Campus:*

Bachelor of Engineering (Robotics and Mechatronics), 4 years full time or equivalent (an optional and additional six to twelve months of paid supervised industry-based learning is available)

### Additional Information

Graduates may apply for membership of Engineers Australia.

### Employment Opportunities

Mechatronic engineers are employed in firms where it is necessary to design and maintain automatic equipment. This includes a variety of industries, such as manufacturing, mining, aviation, robotics, defence and transport. Some mechatronic engineers are employed by large manufacturing companies which are involved in high-volume production.

New opportunities are becoming available due to technological advances. Mechatronic engineering can lead to management positions, including project management. Mechatronic engineers have broad multi-disciplinary skills, so they are able to move into more traditional engineering disciplines.

### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)

### Related Jobs

Electronics Engineer (p 162); Mechanical Engineer (p 263).

## Media Presenter

Also known as Announcer, Broadcaster, Radio and Television Announcer, Disc Jockey, DJ, News Reader, Radio Announcer and Television Presenter.

Media presenters deliver a variety of radio, television and live programs, including all music formats, music and chat programs, interview and talkback programs, news bulletins and sports programs.

They may also present rock and classical music concerts that are broadcast live to air, and pre-recorded programs such as documentary and music specials.

Media presenters may perform the following tasks:

- announce programs, music and entertainment items
- read commercials, both live and pre-recorded
- read news bulletins
- provide station identification, time, weather and community announcements
- introduce live performances
- conduct interviews and host talkback programs
- make live action commentary on sporting events, politics, and social and economic matters
- work off-camera in television announcing programs
- host panel shows and live variety shows
- interview personalities at special events, or in studios for live or taped broadcasts
- introduce performers and host special events
- write their own scripts.

Areas of specialisation include sports commentator, disc jockey, newsreader, talkback announcer and political commentator.

Media presenters may be required to work irregular hours, including weekends. On-camera presenters need to be well groomed. Specialist presenters, such as sports and political commentators, should have a solid knowledge of the subject they are presenting.

### Personal Requirements

- clear speaking voice with good command of English
- broad general knowledge
- interested in current affairs and/or music
- technical ability to operate broadcasting equipment
- able to work under pressure
- good communication skills
- willing to work in country areas.

### Education and Training

You can work as a media presenter without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate course below usually requires Year 10. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institution for more information as requirements may change.

Completion of a course in media studies or journalism may also enhance your employment prospects. For course details, refer to the entry for Journalist.

Educational and community radio stations are staffed mainly by volunteers. They offer you experience and often conduct their own short courses and/or offer opportunities for you to gain credit towards training package qualifications. Contact your local station or the Community Broadcasting Association of Australia for more details.

You can also become a media presenter through a traineeship in Screen and Media. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.



Costs, duration and entry requirements may vary between courses. See the online entry for Media Presenter at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Certificate Courses

**TAFE Victoria** - various locations:

Certificate III in Media

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Screen and Media or Film, TV and Radio Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Media presenters work for radio, television stations and advertising production houses. Competition is very strong for any positions offered. There are often more vacancies in country radio stations, which is where inexperienced media presenters usually begin their careers. Successful applicants are often those with knowledge in special areas of interest such as sport, music or drama.

#### For Further Information

- Australian Broadcasting Corporation (VIC) ☎ (03) 9626 1500  
🌐 [www.abc.net.au](http://www.abc.net.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Actor (p 51); Copywriter (p 131); Entertainer (p 166); Journalist (p 239).

## Medical Imaging Technologist

Also known as Medical Diagnostic Radiographer and Radiographer.

Medical imaging technologists operate X-ray and other imaging equipment, such as MRI and Ultrasound, to produce radiographic images which are used in the diagnosis and subsequent management of disease or injury.

Medical imaging technologists may perform the following tasks:

- receive and interpret requests from medical practitioners for X-ray examinations to be performed on patients
- determine the appropriate imaging techniques which will provide diagnostic information for the doctor
- calculate details of procedures such as length and intensity of exposure to radiation and settings of recording equipment
- explain procedures to patients, and address any concerns they have about radiation processes
- make sure patients receive the correct preparation for the procedure
- correctly position the patient and imaging equipment to obtain the best image of the area being examined
- make sure of the patient's welfare during the examination, including radiation safety
- develop the X-ray films
- check images to determine if any further views are necessary
- operate special equipment such as fluoroscopy equipment (which gives a moving image of the part being examined), angiography equipment (which images blood vessels) and computed tomography (CT) equipment (which gives cross-sectional images of the body).

Medical imaging technologists who are employed in a hospital may work in the radiology department, use mobile X-ray units at patients'

bedsides or work in an operating theatre. They work as part of a team with other health professionals, medical staff and nursing staff. Hours of work may involve weekend or shift work. Participation in an on-call roster for after-hours emergencies may also be required.

Experienced radiographers may also develop further skills in image interpretation.

#### Specialisations

**Sonographer** - operates ultrasound machines and related equipment to produce images for medical diagnostic purposes.

**MRI Radiographer** - operates MRI scanners and ensures patient safety during the procedure to produce detailed images.

#### Personal Requirements

- enjoy science
- able to work accurately
- able to work as part of a team
- eye for detail
- enjoy helping people.

#### Education and Training

To become a medical imaging technologist you usually have to study medical radiation science at university. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change. In some circumstances applicants who meet the academic criteria will also be required to complete a questionnaire and attend an interview.

#### Degree Courses

**Monash University - Clayton Campus:**

Bachelor of Radiography and Medical Imaging, 4 years full time

**RMIT University - Bundoora Campus:**

Bachelor of Applied Science (Medical Radiations), majoring in medical imaging, 3 years full time

**Swinburne University - Hawthorn Campus:**

Bachelor of Engineering (Biomedical Engineering), majoring in medical imaging, 4 years full time

#### Additional Information

Depending on the length of the university course, some graduates are required to complete a year of clinical practice in an accredited radiology department. Those completing a four-year degree with the necessary clinical component are not required to undertake this additional year. On successful completion of the year, the graduate must apply for accreditation from the Australian Institute of Radiography, and also apply to the relevant state or territory regulating authority for registration or licensing to practise as a medical imaging technologist.

From July 2012, all practitioners working in the medical radiation field will be included in the National Registration and Accreditation Scheme for selected health professions. See the Australian Health Practitioner Regulation Agency's website ([www.ahpra.gov.au](http://www.ahpra.gov.au)) for more information.

#### Employment Opportunities

Medical imaging technologists are employed in public and private hospitals and private radiology practices.

Demand for medical imaging technologists has grown over the past few years. This has mainly been due to new and expanding techniques, such as magnetic resonance imaging and ultrasound, which aid in the diagnosis and treatment of various medical conditions.



#### For Further Information

- Australian Institute of Radiography (Federal Office)  
☎ (03) 9419 3336 ✉ info@air.asn.au 🌐 www.air.asn.au
- Medical Radiation Practitioners Board of Victoria ☎ 1300 661 487  
or (03) 9286 1888 ✉ registrar@mrpb.vic.gov.au  
🌐 www.mrpb.vic.gov.au

#### Related Jobs

Cardiac Technologist (p 103); Nuclear Medicine Technologist (p 294);  
Radiation Therapist (p 343).

### Medical Laboratory Technician

Also known as Pathology Technical Officer and Medical Laboratory Technical Officer.

Medical laboratory technicians carry out routine laboratory tests and other procedures used in the diagnosis and treatment of diseases and disorders of the human body.

Medical laboratory technicians may perform the following tasks:

- set up equipment used in the laboratory and maintain it in a clean condition
- prepare and stain slides of micro-organisms for microscopic examination
- under supervision, collect blood samples, perform blood counts and perform tests to determine bleeding, coagulation time, blood types and other characteristics
- communicate results of tests to the medical officers who have requested them.

Medical laboratory technicians work as part of a team with doctors, scientists and laboratory assistants.

Some areas in which medical laboratory technicians may work are:

**Anatomical Pathology** where they process samples of tissue that have been surgically removed from the body so that the pathologist may make a diagnosis.

**Clinical Chemistry (Biochemistry)** where they test blood and body fluids to determine abnormalities in the blood, often using specialised instrumentation.

**Cytology** where they prepare and stain smears of body tissues or fluids and examine them with a microscope, looking for cancer or cell changes that may lead to cancer.

**Haematology** where they examine blood, work out its type, perform blood counts and generally assist in the study of blood and its disorders in order to diagnose diseases such as leukaemia and iron deficiency anaemia.

**Medical Microbiology** where they receive samples such as wound swabs, urine and faeces, help to isolate and identify micro-organisms associated with various diseases and infections and examine samples for evidence of these micro-organisms.

#### Specialisation

**Phlebotomist** - practises the drawing of blood for therapeutic, transfusion, diagnostic or experimental purposes.

#### Personal Requirements

- attention to detail
- able to work accurately and with minimal supervision
- able to do repetitive work without losing concentration.

#### Education and Training

To become a medical laboratory technician you usually have to complete a Diploma of Laboratory Technology specialising in

pathology testing. Entry to the diploma courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a medical laboratory technician through a traineeship in Laboratory Technology. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Diploma Courses

*Holmesglen Institute of TAFE - Moorabbin Campus:*

Diploma of Laboratory Technology (Pathology Testing)

*RMIT University (TAFE Division) - City Campus:*

Diploma of Laboratory Technology (Pathology Testing)

*Victoria University (TAFE Division) - Werribee Campus:*

Diploma of Laboratory Technology (Pathology Testing)

#### Additional Information

Graduates may be eligible for Intermediate Membership of the Australian Institute of Medical Scientists.

#### Employment Opportunities

Medical laboratory technicians are employed primarily in pathology practices or hospital laboratories. There are also opportunities with other government authorities such as agriculture departments and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and at universities.

#### For Further Information

- Australian Institute of Medical Scientists (National Office)  
☎ (07) 3876 2988 ✉ aimsnat@aims.org.au  
🌐 www.aims.org.au
- Health Services Union - Health Professionals ☎ (03) 9341 3390  
✉ hsuhp@hsuvc.asn.au 🌐 www.hsuvc.asn.au

#### Related Jobs

Biochemist (p 88); Forensic Scientist (p 192); Laboratory Worker (p 240); Medical Scientist (p 270).

### Medical Practitioner

Also known as Doctor, General Practitioner and GP.

Medical practitioners diagnose physical and mental illnesses, disorders and injuries, and prescribe medications and treatment to promote or restore good health.

Medical practitioners may perform the following tasks:

- examine the patient to determine the nature of the disorder or illness, and record the patient's medical information
- order, perform and analyse laboratory tests, X-rays and other diagnostic images and procedures
- provide overall care for patients and prescribe and administer treatments, medications and other remedial measures
- aid in the prevention of diseases and disorders by advising patients on diet, exercise, hygiene and general health
- prescribe and administer medication and inoculate patients to prevent infectious or contagious diseases
- provide pre and post-natal care
- report births, deaths and notifiable diseases to government authorities
- arrange for patients to be admitted to hospital
- refer patients to other medical specialists and exchange relevant medical details.



Medical practitioners are involved in a wide range of activities including consultations, attending emergencies, performing operations and arranging medical investigations. In caring for patients, medical practitioners work with many other health professionals.

Medical practitioners sometimes have to deal with unpleasant conditions due to a patient's illness or injury. Adopting strict hygiene practices is important.

Depending on their area of specialisation, medical practitioners may have to work long, demanding and irregular hours. This may include working on weekends and at night or being on call 24 hours a day.

#### Specialisations

**Anaesthetist** - administers anaesthetics to patients who are undergoing surgery and takes care of them during and after the operation. Anaesthetists are also involved in pain management.

**Neurologist** - studies and treats injuries and diseases affecting the brain, spinal cord, peripheral nervous system and muscle tissue.

**Obstetrician/Gynaecologist** - provides medical care before, during and after childbirth (obstetrics), and diagnoses, treats and assists in the prevention of disorders of the female reproductive system (gynaecology).

**Ophthalmologist** - diagnoses and treats diseases, injuries and deficiencies of the eye.

**Paediatrician** - diagnoses and treats diseases of children from birth to early adolescence.

**Pathologist** - uses laboratory procedures to identify and diagnose the presence and stages of diseases, and possible sources of infection in body tissues, fluids, secretions and other specimens.

**Physician** - may specialise in one of many branches of medicine, such as internal medicine, cardiology (treatment of heart disease), rheumatology (treatment of arthritis), allergy, neurology, haematology (treatment of diseases of the blood and blood forming tissues), or geriatrics (diagnosis and treatment of diseases affecting elderly people).

**Psychiatrist** - diagnoses and treats mental, emotional and behavioural disorders.

**Radiologist** - diagnoses and treats diseases using radiant energies such as X-rays, ultrasound, gamma rays and radio waves.

**Sports Doctor** - concerned with the treatment and prevention of sporting injuries caused by sporting accidents or overuse. They may monitor sporting performances and provide on-site medical treatment. Sports medicine practitioners also diagnose injuries and devise treatment programs to assist sportspeople to return to training or competition.

**Surgeon** - may specialise in many areas such as orthopaedic surgery (bones and joints), plastic and reconstructive surgery, ophthalmology, cancer surgery and otorhinolaryngology (ear, nose and throat).

#### Personal Requirements

- good communication skills
- self-confidence
- conscientiousness
- able to relate to people
- compassionate towards others
- enjoy working with people
- a high degree of motivation and self-discipline.

#### Education and Training

To become a medical practitioner you usually have to study medicine at university. To get into the courses below you usually need to gain your VCE with particularly good results. Prerequisite subjects, or assumed knowledge, in one or more of English and chemistry are normally required. The universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Entry into the Monash University course is highly competitive and is based on a combination of academic achievement, performance on the Undergraduate Medicine and Health Sciences Admission Test (UMAT), and a structured interview. The UMAT is a written test that assesses non-academic personal qualities. Entry into the graduate course at Deakin University is based on prior completion of a bachelor degree, performance in the Graduate Australian Medical Schools Admission Test (GAMSAT) and a score resulting from a structured interview. Studies in behavioural, social, biological and physical sciences, and humanities are likely to enhance performance in the test and are offered at most universities.

#### Degree Courses

##### Deakin University - Geelong Campus:

Bachelor of Medicine/Bachelor of Surgery (graduate entry), 4 years full time

##### Monash University - Clayton Campus:

Bachelor of Medicine/Bachelor of Surgery, 5 years full time

##### University of Melbourne - Parkville Campus:

Bachelor of Biomedicine/Doctor of Medicine, 7 years full time

#### Additional Information

Following completion of the above courses, graduates must undertake one year of full-time employment (internship) at a recognised teaching hospital to be able to gain full registration as a medical practitioner with the Medical Board. Prior to commencing clinical placements, students will be required to obtain a Working with Children Check, undergo a criminal record check, and comply with immunisation requirements.

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including medical practice. Boards in each State and Territory implement these national standards and policies. For full details, see the Medical Board of Australia's website ([www.medicalboard.gov.au](http://www.medicalboard.gov.au)).

Entry to the various specialisations requires postgraduate study, experience in approved hospitals and the passing of examinations leading to membership of the appropriate professional college. Specialist training programs and examinations are administered by these colleges.

General practice training standards are set by the Royal Australian College of General Practitioners and training requires three years following the intern year, with a final examination leading to Fellowship of the College. Rural practice incorporates a further year of special rural skills training.

#### Employment Opportunities

Medical practitioners may work in private practice on their own, in partnership with another medical practitioner, in a group practice, in community health centres and in public hospitals. They work in cities, suburbs and rural townships.

Opportunities for medical graduates depend on a variety of factors such as birth and death rates, population levels and movements, changing patterns of illness and injury, technological advances in health care, the trend towards preventative medicine and the cost to the patient of treatment and health insurance. While most city areas



and major towns are well supplied with medical practitioners, there are shortages in some city areas and in almost all rural/remote locations.

#### For Further Information

- Medical Board of Australia ☎ 1300 419 495  
🌐 [www.medicalboard.gov.au](http://www.medicalboard.gov.au)
- Australian Medical Council ☎ (02) 6270 9777  
✉ [amc@amc.org.au](mailto:amc@amc.org.au) 🌐 [www.amc.org.au](http://www.amc.org.au)
- Royal Australian College of General Practitioners  
☎ (03) 8699 0414 ✉ [racgp@racgp.org.au](mailto:racgp@racgp.org.au)  
🌐 [www.racgp.org.au](http://www.racgp.org.au)

#### Related Jobs

Biotechnologist (p 89); Chiropractor (p 114); Dentist (p 145); Forensic Scientist (p 192); Hospital Administrator (p 217); Medical Scientist (p 270); Microbiologist (p 274); Optical Dispenser (p 302); Osteopath (p 305); Pharmacologist (p 316); Physiotherapist (p 319); Speech Pathologist (p 377); Sports Scientist (p 380); Toxicologist (p 410).

## Medicine at Melbourne.

[mdhs.unimelb.edu.au/](http://mdhs.unimelb.edu.au/)



THE UNIVERSITY OF  
MELBOURNE

CRICOS: 00116K

### Medical Scientist

Also known as Medical Laboratory Scientist.

Medical scientists conduct medical laboratory tests to provide information for diagnosing, treating and preventing disease.

Medical scientists may perform the following tasks:

- study blood and its diseases, count blood cells and examine blood slides with a microscope
- identify blood diseases such as anaemia and leukaemia
- work out the suitability of blood for transfusion by cross matching the blood with the patient and checking for the presence of diseases such as hepatitis and AIDS
- test blood for blood group antibodies which may cause disease in newborn babies and check the compatibility of bone marrow, kidney and other organs for transplantation
- work out the chemical composition of specimens such as blood and urine, important in the diagnosis and treatment of kidney disease, liver disease and diabetes
- grow disease-causing organisms such as bacteria, viruses and fungi that are taken from a variety of clinical specimens
- prepare body tissues (taken from the body during surgery or post-mortem examinations) for microscopic examination
- prepare body fluids for microscopic examination and diagnose abnormalities
- isolate and examine genetic material (DNA and RNA) for alterations specific to genetic diseases and cancer, to assist in the diagnosis and treatment of these conditions
- supervise the work of other scientists, technical officers and assistants
- advise medical practitioners on the interpretation of tests.

A medical scientist may specialise in haematology, immunology, transfusion science, clinical biochemistry, microbiology, histopathology, cytology or virology. They work as part of a team with doctors, pathologists, scientists, technicians and laboratory assistants.

#### Personal Requirements

- able to make clear and precise observations
- able to work accurately with attention to detail
- good verbal and written communication skills
- able to identify and analyse problems and develop practical solutions
- able to perform under pressure
- able to organise and prioritise work.

#### Education and Training

To become a medical scientist you usually have to study medical or biomedical science at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Degrees in medical or biomedical science are widely available at most universities in Victoria. Check institution handbooks for full details.

#### Additional Information

Graduates from accredited courses may be eligible for membership of the Australian Institute of Medical Scientists. Membership is not compulsory. Visit their website for a list of available accredited courses.

#### Employment Opportunities

Most medical scientists work in the health industry, especially in hospitals. There are also employment opportunities in universities and research organisations and in the private sector. There is a relatively stable employment base.

Factors that may affect employment include the number and type of tests required to research, diagnose and treat diseases, and the incidence of new diseases.

#### For Further Information

- Australian Institute of Medical Scientists (National Office)  
☎ (07) 3876 2988 ✉ [aimsnat@aims.org.au](mailto:aimsnat@aims.org.au)  
🌐 [www.aims.org.au](http://www.aims.org.au)

#### Related Jobs

Biochemist (p 88); Biotechnologist (p 89); Cardiac Technologist (p 103); Dispensary Technician (p 148); Forensic Scientist (p 192); Medical Laboratory Technician (p 268); Medical Practitioner (p 268); Microbiologist (p 274); Pharmacist (p 315); Pharmacologist (p 316); Toxicologist (p 410).

### Metal Surface Finisher

Also known as Powder Coater.

Metal surface finishers work in metal fabrication and engineering production operations. They finish metal products by cleaning, polishing, filing or bathing them in acid solutions. They also apply protective and decorative coatings.

Metal surface finishers may perform the following tasks:

- coat metal articles and parts with a layer of decorative or protective metal such as copper, silver, nickel or chromium
- prepare and maintain plating solutions
- clean and prepare metal surfaces with cleaning solutions, such as acids or alkalis, or by using blasting cabinets
- apply waxes, lacquers or resistant adhesive tapes to areas not to be plated
- dip parts in plating solutions or use selective brush plating
- use electroplating equipment, setting and adjusting controls to achieve the desired thickness of plating.



Metal surface finishers work in production areas that can be noisy, hot, dusty and may contain fumes. However, the work environment is generally spacious, well ventilated and well lit. They may have to spend long periods standing and are sometimes required to work shifts.

#### Personal Requirements

- enjoy practical and manual work
- enjoy technical activities
- physically fit
- able to work independently and as part of a team
- patience
- able to work accurately
- safety conscious
- free from allergies to paint, solvents or dusts.

#### Education and Training

You can work as a metal surface finisher without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have a certificate in engineering.

Entry to the certificate course below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a metal surface finisher through a traineeship in Engineering. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate II in Engineering

#### Employment Opportunities

Metal surface finishers work for engineering firms, appliance and furniture makers, foundries and fencing manufacturers. They also work for motor vehicle accessory manufacturers, sheetmetal workshops and jobbing (smaller) shops.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Engineering Tradesperson - Fabrication (p 164); Industrial Spray Painter (p 226).

## Metallurgical Technician

Metallurgical technicians test materials as part of mineral processing and metal refining, or for research purposes, and provide technical support to metallurgists.

Metallurgical technicians may perform the following tasks:

- obtain, measure and prepare samples for testing
- put materials through test procedures, often using complex equipment, under the direction of metallurgists and other professionals
- analyse, record and report results
- put together charts, graphs and other data for reports
- set up, operate and clean laboratories and scientific equipment.

#### Specialisations

**Primary Metallurgical Technician** - deals with ore (rock or mineral to be mined) preparation; that is, crushing, screening and sub-sampling. They may also be involved in the grinding, leaching and flotation of

ores, and may use operating equipment to separate ores by exploiting gravitational, electrical or magnetic properties.

Primary metallurgical technicians work at mine sites or in base laboratories.

**Secondary Metallurgical Technician** - may be involved with the development of new alloys and the technical supervision of metal and alloy manufacture, processing and fabrication in industry.

Secondary metallurgical technicians work in testing laboratories.

#### Personal Requirements

- enjoy technical and engineering activities
- analytical skills
- enjoy mathematics and science
- good hand-eye coordination
- aptitude for working with computers.

#### Education and Training

To become a metallurgical technician you usually have to complete an Advanced Diploma of Engineering Technology. Entry to the advanced diploma course below usually requires completion of a Diploma of Engineering. Courses are also offered by distance education. Contact the institutions you are interested in for more information as requirements may change.

#### Diploma Courses

*TAFE Victoria - various locations:*

Advanced Diploma of Engineering Technology

#### Employment Opportunities

Metallurgical technicians may be employed as engineering technicians, research assistants, laboratory technicians, technical inspectors or quality control specialists.

Employment opportunities exist with service and research laboratories and metal manufacturers. Openings are generally located in regional centres, near mining or manufacturing operations.

#### For Further Information

- Materials Australia (National Office)  
☎ [www.materialsaustralia.com.au](http://www.materialsaustralia.com.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) ☎ [www.miningcareers.com](http://www.miningcareers.com)
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ [careers@ausimm.com.au](mailto:careers@ausimm.com.au)  
☎ [www.ausimm.com.au](http://www.ausimm.com.au)

#### Related Jobs

Laboratory Worker (p 240); Materials Engineer (p 261); Metallurgist (p 271); Non-destructive Testing Technician (p 294).

## Metallurgist ✱

Also known as Metallurgical Engineer.

Metallurgists research, control and develop processes used in extracting minerals from ore (rock) for refining metals.

Metallurgists may perform the following tasks:

- apply physical and chemical methods to separate valuable minerals from their ores
- work out temperature adjustments, raw material mixtures and other processing variables to make metals
- conduct studies of metals and alloys before and during processing to determine their properties
- supervise sampling from various stages of processing for laboratory analysis and testing



- examine metal processing techniques to make sure that quality is maintained and to improve processing or develop new methods
- investigate whether methods being used are the cheapest, most efficient and environmentally acceptable
- supervise and coordinate the work of technicians and other workers
- advise operators on production methods and quality control systems
- investigate failure of components to identify the cause
- prepare technical reports.

Metallurgists work at mineral processing sites, mines, factories, workshops, foundries, laboratories or offices. They usually work with other professionals such as mining or construction engineers, geologists, mineralogists, technicians and tradespeople.

#### Personal Requirements

- enjoy technical and engineering work
- willing to contribute and adhere to safety requirements
- able to identify, analyse and solve problems
- able to communicate well orally, in writing and graphically
- practical and creative
- able to work without supervision
- able to accept responsibility.

#### Education and Training

To become a metallurgist you usually have to study engineering or science at university with a major in metallurgy or materials. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, chemistry and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested for more information as requirements may change.

#### Degree Courses

##### *Monash University - Clayton Campus:*

Bachelor of Engineering, majoring in engineering (materials), 4 years full time or equivalent

##### *RMIT University - City Campus:*

Bachelor of Engineering (Chemical Engineering), majoring in engineering (metallurgical), 4 years full time

##### *University of Ballarat - Mount Helen Campus:*

Bachelor of Applied Science (Metallurgy), 3 years full time or equivalent

Bachelor of Science, majoring in metallurgy or mineral processing and extractive metallurgy, 3 years full time or equivalent

#### Additional Information

Graduates of accredited courses may be eligible to join the Australasian Institute of Mining and Metallurgy (AusIMM), Engineers Australia, or the Institute of Materials Engineering Australasia Ltd (IMEA).

#### Employment Opportunities

Metallurgists are employed in production, research and technical sales in companies which mine and process metals, in manufacturing industries involving metals and in related research organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO). They are also employed by government departments. Some metallurgists find employment in educational institutions and in marketing and technical sales for companies dealing in metal products and coated products.

After several years of experience, metallurgists may move into middle or senior level management positions. Others form their own

companies providing advice to companies and firms involved in metal production.

Demand for metallurgists is dependent on the level of activity in the mining, metals and materials manufacturing industries.

#### For Further Information

- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ careers@ausimm.com.au  
🌐 www.ausimm.com.au
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ careers@engineersaustralia.org.au  
🌐 www.engineersaustralia.org.au
- Engineer Your Career 🌐 www.engineeryourcareer.org.au
- Materials Australia (National Office)  
🌐 www.materialsaustralia.com.au
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ education@minerals.org.au 🌐 www.miningcareers.com

#### Related Jobs

Chemical Engineer (p 110); Chemist (p 111); Engineering Tradesperson - Fabrication (p 164); Geological Engineer (p 201); Geologist (p 202); Materials Engineer (p 261); Metallurgical Technician (p 271); Mineral Processing Operator (p 277); Minerals Process Engineer (p 277); Mining Engineer (p 278).

## Meteorological Technical Officer 🌟

Also known as Technical Officer (Observer).

Meteorological technical officers use scientific instrumentation and electronic equipment to collect and record meteorological data (such as air temperature, barometric pressure, wind speed and direction, humidity, rainfall, evaporation and cloud type) for climate, forecasting and aviation purposes.

Meteorological technical officers may perform the following tasks:

- monitor surface and upper-air meteorological conditions using specialist equipment
- perform basic, non-electronic maintenance and repair of specialist meteorological equipment
- perform data communication functions and provide support to meteorologists
- operate specialised meteorological computing systems in order to control the quality of incoming data and prepare reports
- monitor and develop new systems of observation and provide research support
- collate and distribute statistics, maps, forecasts and other meteorological information to clients, the media and the general public
- supervise volunteer observers, who provide reports on the surface weather conditions
- manage field offices, including administration, public relations and media liaison.

Meteorological technical officers may work with meteorologists and must be prepared to work in tropical and remote locations. Depending on the duties, the work may be done indoors or outdoors, in large offices or in small remote field stations. Shift work is usually required.

#### Personal Requirements

- enquiring mind and analytical ability
- able to think creatively and solve problems
- able to work accurately and systematically
- able to work independently or as part of a team
- able to endure isolation
- an aptitude for electronics.



## Education and Training

To become a meteorological technical officer you usually have to complete a diploma or advanced diploma in a physical science with some mathematics or information technology content. Entry to the diploma and advanced diploma courses usually requires Year 12/VCE. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Meteorological Technical Officer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You may be able to study through distance education. See the Learning Pathways section for more information.

## Additional Information

Meteorological technical officers start with the Commonwealth Bureau of Meteorology as Trainee Technical Officers and undertake a 29-week training course at the Bureau's Training Centre in Melbourne, followed by 9 weeks on-the-job training. After completing the training course, trainees are promoted to the position of Technical Officer Grade 2 and transferred to one of the Bureau's offices, which are located throughout Australia.

## Employment Opportunities

Employment of meteorological technical officers is limited to the Bureau of Meteorology. Meteorological technical officers are based in the Bureau's head office in Victoria, in capital city regional forecasting centres, or in one of about 50 country centres. Promotion to higher grades depends on ability and on positions being vacant.

## For Further Information

- The Recruitment Manager, Bureau of Meteorology (Head Office)  
☎ (03) 9669 4401 ✉ [jobs@bom.gov.au](mailto:jobs@bom.gov.au)  
🌐 [www.bom.gov.au/careers](http://www.bom.gov.au/careers)

## Related Jobs

Agricultural Technical Officer (p 58); Electronics Engineering Associate (p 162); Laboratory Worker (p 240); Meteorologist (p 273); Science Field Officer (p 362).

# Meteorologist

Also known as Weather Forecaster.

Meteorologists forecast the weather and study the atmosphere to improve the understanding of climate.

Meteorologists may perform the following tasks:

- use and develop scientific techniques to forecast and interpret atmospheric conditions
- analyse and interpret surface, upper level and other measurements (including satellite images and other remote sensing data about atmospheric conditions)
- prepare weather forecasts for the public and for specific users such as aviation, marine, defence and emergency services
- issue warnings for cyclones, storms, gales, floods, frosts and fire danger
- study climate and identify climatic change
- work with physicists and engineers to develop observation equipment and distribute information on topics such as air pollution
- supervise and coordinate the work of other meteorologists, technical officers and meteorological observers
- carry out weather studies for particular clients.

Meteorologists in forecasting positions usually work in shifts. Operational meteorologists may work in field station locations

throughout Australia and its territories, from the tropics to Antarctica. Others are involved in policy development, administration and training.

## Specialisations

**Climatologist** - monitors and studies the climate and the factors that control its variability. A climatologist may produce climate assessments and forecasts of seasonal conditions, or contribute to national and international assessments of climate variability and climate change. Climatologists may also provide relevant climate data to users such as the insurance industry.

**Hydrometeorologist** - provides information on rainfall patterns and intensity in support of the planning and management of land and water resources, and the design of urban drainage systems and dams.

**Meteorological Consultant** - provides advice and conducts investigations involving the application of meteorology to such fields as agriculture, engineering, architecture, health, tourism, urban planning and design.

**Research Meteorologist** - develops and tests theories and concepts, and applies the laws of physics to the study of the atmosphere, with the aim of improving forecasts and warnings. This includes the analysis of meteorological data and the running of forecast and global climate models.

## Personal Requirements

- enjoy and have ability in science, especially physics and mathematics
- flexible and resourceful
- interested in the provision of meteorological services to the community
- Australian citizenship, or the eligibility to apply for Australian citizenship, is required for employment in the Bureau of Meteorology.

## Education and Training

To become a meteorologist you usually have to complete a degree in science or applied science with majors in mathematics and physics or in meteorology or atmospheric studies. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics, chemistry, biology, geography and psychology are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

## Degree Courses

The following universities offer bachelors of science or applied science with majors in atmospheric science, mathematical physics, mathematics, meteorology or physics, 3 years full time or equivalent.

*La Trobe University - Bendigo and Bundoora Campuses*

*Monash University - Clayton Campus*

*RMIT University - City Campus*

*University of Melbourne - Parkville Campus*

*Victoria University - Footscray Park Campus*

## Additional Information

Successful applicants with the Bureau of Meteorology must complete a 10 month specialised training program at the Bureau of Meteorology Training Centre in Melbourne before being posted to one of the regional or field offices throughout Australia. Upon completion of the training graduates receive a Graduate Diploma in Meteorology.

## Employment Opportunities

The Bureau of Meteorology is the major employer of meteorologists. A few positions are occasionally available in private companies, the



Commonwealth Scientific and Industrial Research Organisation (CSIRO), universities and state or territory government bodies (mainly environmental agencies).

Most meteorologists are employed in capital cities, but some are employed at major airports and RAAF bases outside capital cities and further afield (e.g. Antarctica). There are also a small but increasing number of meteorological consultants and practitioners who provide a private consultancy service to engineers and architects.

Competition for the few positions offered each year is very strong. Possession of a higher degree qualification may be an advantage. Those who successfully complete the Bureau's training course are employed in the Bureau's head office in Melbourne or in a capital city regional forecasting centre. Subsequent promotion is based on ability and on positions becoming available. Vacancies are usually advertised in the larger metropolitan newspapers during July, August or September for training courses which commence in late January/February.

#### For Further Information

- The Recruitment Manager, Bureau of Meteorology (Head Office)  
☎ (03) 9669 4401 ✉ [jobs@bom.gov.au](mailto:jobs@bom.gov.au)  
🌐 [www.bom.gov.au/careers](http://www.bom.gov.au/careers)

#### Related Jobs

Biotechnologist (p 89); Mathematician (p 261); Meteorological Technical Officer (p 272); Physicist (p 318).

## Microbiologist

Microbiologists study microscopic forms of life such as bacteria, viruses, protozoa, algae and fungi to increase scientific knowledge and develop medical, veterinary, industrial, environmental and other practical applications.

Microbiologists may perform the following tasks:

- develop products, such as antibiotics, detergents or cosmetics, that either combat diseases caused by pathogenic micro-organisms or harness the positive capabilities of micro-organisms
- test samples from patients, isolating and identifying the microbes that cause illness, examining their susceptibility to antibiotics and giving advice on appropriate treatment
- prevent and control the spread of harmful microbes in hospitals, the food industry and the general population
- advise the government on public health policies
- examine natural products for their ability to inhibit the growth of dangerous microbes and apply their findings to the medical and food industries
- investigate the potential of microbes to improve human and animal health through nutrition
- develop and improve fermented drinks and foods, such as beer, wine, cheese and yoghurt
- research the microbiology of plants and use microbes to control pests, weeds and animal diseases
- study DNA and the use of bacteria to introduce specially engineered genes into an organism in order to fight disease or to change a specific feature of the organism
- use their knowledge of microbiology to minimise the environmental impact of production and clean up existing pollution
- investigate the ways in which micro-organisms can be used to improve and enhance products that impact on quality of life, such as food and beverages.

#### Personal Requirements

- enjoy and have aptitude for science and research
- able to think logically and analytically
- able to carry out detailed and accurate work
- good communication skills
- able to think creatively and solve problems
- able to work as part of a team.

#### Education and Training

To become a microbiologist you usually have to complete a science degree at university with a major in microbiology. To get into these courses you usually need to gain your VCE. Most universities in Victoria offer degrees in science with a major in microbiology. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may vary.

#### Employment Opportunities

Microbiologists are employed in federal, state, territory and local government organisations, including research organisations and hospitals. They are also employed in the private sector in a wide range of industries, such as agriculture, food production and pharmaceuticals.

#### For Further Information

- CSIRO 🌐 [www.csiro.au](http://www.csiro.au)
- The Australian Society for Microbiology ☎ (03) 9867 8699  
✉ [admin@theasm.com.au](mailto:admin@theasm.com.au) 🌐 [www.theasm.com.au](http://www.theasm.com.au)
- Department of Microbiology, La Trobe University  
☎ (03) 9479 1114 ✉ [microbiology@latrobe.edu.au](mailto:microbiology@latrobe.edu.au)  
🌐 [www.latrobe.edu.au/microbiology](http://www.latrobe.edu.au/microbiology)

#### Related Jobs

Biochemist (p 88); Biomedical Engineer (p 89); Biotechnologist (p 89); Chemist (p 111); Environmental Scientist (p 169); Food Technologist (p 189); Forensic Scientist (p 192); Marine Biologist (p 254); Medical Practitioner (p 268); Medical Scientist (p 270); Tissue Culture Technician (p 408); Veterinarian (p 428); Zoologist (p 443).

## Midwife

Midwives provide care, education, advice and support to women and their families during pregnancy, labour and birth, and provide post-natal care into the early weeks following birth for women and babies.

Midwives may perform the following tasks:

- provide clinical midwifery care and support for women, their babies and their families
- detect any complications which may develop for a mother and/or her baby
- arrange appropriate consultation and referral, and implement emergency measures when necessary
- work as a part of a multi-disciplinary team, liaising with other healthcare professionals to provide the best care for childbearing women, their babies and families
- observe, monitor, assess, report and document care provided to women and their babies, as well as their responses to treatment
- prescribe and administer medicines to women and their babies as required
- prepare women for operative birth and provide post-operative care
- provide education and advice on health matters for women, their families and the wider community
- answer questions and provide information to women and their families about treatment and care



- contribute to the clinical training of medical, midwifery and other students
- directly supervise other health professionals, such as enrolled nurses, registered nurses and health care assistants who may be included in the care of birthing women and their babies.

Midwives usually work according to a rotating 7-day roster which includes morning, afternoon and night shifts, weekends and public holidays. Alternatively, they may work in more flexible models of care that allow them to structure their working hours around the needs of the women they care for. They are often required to work on-call hours.

#### Specialisations

**Midwifery Educator** - supports and teaches midwifery students, assists in the development, design, implementation and evaluation of midwifery education and professional development programs, and manages educational resources.

**Midwifery Researcher** - conducts research into all aspects of midwifery care, professional issues affecting midwives and midwifery, maternity service provision and maternal and infant health policy.

**Midwifery Manager** - is responsible for the effective management of staffing, policy and financial resources enabling the provision of safe, cost-effective midwifery care within a specified field or across an entire hospital or health service.

**Midwifery Unit Manager** - is responsible for the coordination and delivery of care in a specific ward or department or in community settings. They work in collaboration with clinical midwives to give care to mothers and babies with complex care needs, facilitate staff development and undertake research.

#### Personal Requirements

- good communication skills
- able to assume responsibility and take leadership
- able to take initiative in emergencies
- able to work under pressure
- tolerance and patience in dealing with people from a wide range of backgrounds
- able to work as part of a team
- mentally and physically fit.

#### Education and Training

To become a midwife you usually have to study midwifery at university. Midwifery can be studied as an undergraduate course or as a postgraduate course if you have completed a degree in registered nursing. To get into the courses below you will need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, health and human development, mathematics, chemistry, physics, psychology and physical education are normally required. Applicants may also be required to attend an interview. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information.

#### Degree Courses

*Australian Catholic University - Melbourne Campus:*

Bachelor of Midwifery, 3 years full time

*Deakin University - Burwood, Geelong Waterfront and Warrnambool Campuses:*

Bachelor of Nursing/Bachelor of Midwifery, 4 years full time

*La Trobe University - Bundoora Campus:*

Bachelor of Nursing/Bachelor of Midwifery, 4 years full time

*Monash University - Peninsula Campus:*

Bachelor of Midwifery, 3 years full time

*Monash University - Gippsland Campus:*

Bachelor of Nursing Practice/Bachelor of Midwifery, 4 years full time

*Victoria University - St Albans Campus:*

Bachelor of Midwifery, 3 years full time

#### Additional Information

Before undertaking clinical placements for courses, students will need to obtain the relevant police clearances, first aid certificates, immunisations and working with children checks.

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including midwives. Boards in each State and Territory assist the Nursing and Midwifery Board of Australia by implementing these national standards and policies. For full details, visit the Nursing and Midwifery Board of Australia's website.

It is a legal requirement for graduates to be registered with the Nursing and Midwifery Board of Australia before being able to practice as a midwife in any state or territory in Australia.

#### Employment Opportunities

Midwives may work in public and private hospitals, community and home-based services, community health centres and development programs, women's shelters, women's prisons, the armed forces, refugee centres, in remote and rural areas and in fertility clinics. Midwives may also work in private practice by themselves, with other midwives or with a doctor.

Midwives are also employed in international aid agencies and the Royal Flying Doctor Service. An increasing number of midwives are self-employed as consultants and educators.

Midwifery is a growing professional area and there are varied opportunities for midwives to work in clinical settings, within education, and also in research.

#### For Further Information

- Australian College of Midwives ☎ 1300 360 480  
✉ [members@midwives.org.au](mailto:members@midwives.org.au) 🌐 [www.midwives.org.au](http://www.midwives.org.au)
- Nursing and Midwifery Board of Australia ☎ 1300 419 495  
🌐 [www.nursingmidwiferyboard.gov.au](http://www.nursingmidwiferyboard.gov.au)

#### Related Jobs

Anaesthetic Technician (p 65); Counsellor (p 133); Health Promotion Officer (p 210); Nurse - Enrolled (p 295); Nurse - Registered (p 296); Occupational Therapist (p 299); Paramedic (p 308); Physiotherapist (p 319).

## Milliner

Also known as Hat Maker.

Milliners design and make hats and other headgear such as caps, berets, bonnets, fascinators and bridal headpieces, using materials such as felt, fabric, fur, leather, straw and artificial flowers.

Milliners may perform the following tasks:

- interpret fashion trends and use them in designing hats and other headgear
- mark out and cut patterns to desired shape and size, lay the pattern onto fabric and cut around it using scissors
- shape, cut, twist, roll or fold and reinforce hood with wire to gain desired effect
- assemble hats by hand or using a sewing machine
- steam and press material into shape by hand and, if needed, stiffen it by using a special solution



- reinforce brims with wire to maintain shape, sew headbands and lining into crowns, and sew trimmings such as ribbons, buckles, braids or chains onto hats
- operate semi-automatic blocking machines for mass production
- alter, renovate and re-block (re-shape) existing hats
- package and despatch hats for customers
- display, fit and sell hats and accessories.

Milliners employed by mass-production firms usually perform single tasks, such as trimming hats with ribbon or sewing in headbands. Milliners making 'semi-model' (limited production) hats hand-trim shapes that have been moulded by machine. Highly skilled milliners create designs in fabric or on paper that can be followed by other milliners.

#### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- an artistic sense of colour and design
- patience and perseverance
- understanding of fashion trends.

#### Education and Training

To become a milliner you usually need to complete a certificate in millinery. Entry to the certificate course below usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Certificate Courses

*Kangan Batman Institute of TAFE - Richmond Campus:*

Certificate III in Millinery

#### Employment Opportunities

Most milliners are employed in hat manufacturing firms, although some are employed in small firms which produce semi-model hats by hand. Milliners who have sufficient experience and the necessary start-up money and business ability are able to set up their own retail businesses, selling model (one-off) and semi-model hats.

Applicants should contact individual milliners to obtain information about employment conditions and training requirements, which can vary from firm to firm. Demand for milliners varies throughout the year.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Clothing Patternmaker (p 122); Fashion Designer (p 174).

## Miner

Also known as Mining Plant Operator.

Miners operate equipment to excavate, load and transport coal, ore, mineral sand and rock, either underground or in open-cut mines.

Miners may perform the following tasks:

- extract coal or ore by drilling, blasting or excavating
- load ore into mine cars, trucks or conveyors for transport to stockpile or treatment
- undertake development work such as opening up new shafts, drives, air vents, rises and crib rooms
- install lighting, pumps, cabling and other equipment to service the mine
- monitor the operation of plants and ensure the safety of other workers on mining sites and during drilling operations
- operate auxiliary plants such as pumps to expel air, water and mud.

Mines are often located in remote areas where miners and plant operators may have to work in dusty, hot and noisy conditions. Many workers are employed at mine sites on a fly-in, fly-out basis, usually flying from a base location to the mine site, where they work for a number of weeks and then return to the base location. Although they work as part of a team, miners generally work without direct supervision.

#### Specialisations

**Open-cut Miner** - uses mobile plant machinery (such as bucketwheel excavators, draglines, mining shovels, bulldozers, graders and front-end loaders) to extract ore from the mine.

**Underground Miner** - travels down vertical shafts or sloping declines to reach the work face. Duties may include rockbolting the walls and roofs of mines, building timber or steel sets to support the rock and back-filling mineral voids.

**Mine Shift Supervisor** - regularly inspects mine sites (both above and below ground) and roadways to check that conditions are safe and ensure compliance with safety regulations and emergency procedures. They also supervise shotfiring and conduct tests to detect gas or insufficient ventilation.

Other career progressions for miners include registered mine manager, undermanager, mine deputy and open-cut examiner.

#### Personal Requirements

- enjoy practical and manual activities
- aptitude for mechanical equipment operation
- able to tolerate physically demanding work, including shift work
- willing to work within occupational health and safety rules
- age limits may apply.

#### Education and Training

To become a miner you usually have to complete a certificate course in extractive industries or metalliferous mining operations. Entry to the certificate courses below usually requires Year 10.

You can also become a miner through an apprenticeship in Small Mining Operations, Surface Coal Operations, Surface Extraction Operations, Underground Coal Operations or Underground Metalliferous Mining. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Bendigo Regional Institute of TAFE - Bendigo Campus:*

- Certificate II in Extractive Industries Operations
- Certificate III in Extractive Industries Operations
- Certificate II in Metalliferous Mining Operations (Open Cut/Underground)
- Certificate III in Metalliferous Mining Operations (Open Cut/Underground)

*Box Hill Institute of TAFE - Whitehorse Campus:*

- Certificate II in Extractive Industries Operations
- Certificate III in Extractive Industries Operations

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Coal, Extractive Industry or Metalliferous Mining Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.



## Employment Opportunities

Miners are employed by mining companies, often in remote regions. Australian mines are generally highly automated, and employment is normally in machine-operating positions.

Employment opportunities fluctuate depending on the level of activity in the resources sector. Mining operations around Australia have a zero drug and alcohol tolerance policy.

### For Further Information

- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- SkillsDMC Ltd (Resources and Infrastructure Industry Skills Council) ☎ (02) 9299 3014 ✉ [skillsdmc@skillsdmc.com.au](mailto:skillsdmc@skillsdmc.com.au)  
🌐 [www.skillsdmc.com.au](http://www.skillsdmc.com.au)
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ [careers@ausimm.com.au](mailto:careers@ausimm.com.au)  
🌐 [www.ausimm.com.au](http://www.ausimm.com.au)

### Related Jobs

Driller's Assistant (p 152); Mineral Processing Operator (p 277); Minerals Process Engineer (p 277); Mining Engineer (p 278); Shotfirer (p 371).

*A miner's pay may seem good . . .  
but the hours are often very long  
and the work is dangerous.*

Make sure you know your rights  
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Australia's largest mining union

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## Mineral Processing Operator

Mineral processing operators use equipment to process mineral ores until the final form is produced.

Mineral-bearing ore is subjected to various processes to extract the minerals. The ore is first crushed, then processing equipment such as screens, grinding mills, filters, flotation cells, tanks and conveyors are used to extract concentrated minerals. The minerals in their final form are produced by smelting.

Mineral processing operators may perform the following tasks:

- assemble and dismantle equipment and fittings in ore-processing plants
- operate ore-crushing and screening plants using manual and computer-based systems, conveyers, feeders, weight-meters, roll mills, pumps, jigs, spirals and flotation cells
- load, unload and store materials such as treatment chemicals and tools
- mix ore-treating chemicals, catalysts and reagents
- clear blockages in materials-handling and transporting equipment
- clean, wash and maintain equipment, and remove spillages and rubbish
- maintain auxiliary systems, such as drainage, fluids-pouring and conveyor-belt systems

- take samples of materials for testing
- use thickeners in the drying processes, pump tailings and manage tailings dams and associated raw-water systems.

Mineral processing operators can be involved in all aspects of mineral processing, including sampling and laboratory work. They are often located in remote areas and working conditions may include dust, heat and noise. Mineral processing operators work in teams, and shift work may be involved.

### Personal Requirements

- enjoy practical and manual work
- physically fit
- resourceful
- mechanical aptitude.

### Education and Training

You can work as a mineral processing operator without formal qualifications. You will probably get some informal training on the job.

You can also become a mineral processing operator through a traineeship in Resource Processing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Resources and Infrastructure Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Mineral processing operators are employed by most mining companies, industrial mineral companies and quarries. Employment opportunities for mineral processing operators depend upon the level of activity in the mining and minerals industries and the technological advancements in mineral processing. There is a trend towards multi-skilling, such as combining processing and maintenance skills.

### For Further Information

- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ [careers@ausimm.com.au](mailto:careers@ausimm.com.au)  
🌐 [www.ausimm.com.au](http://www.ausimm.com.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- SkillsDMC Ltd (Resources and Infrastructure Industry Skills Council) ☎ (02) 9299 3014 ✉ [skillsdmc@skillsdmc.com.au](mailto:skillsdmc@skillsdmc.com.au)  
🌐 [www.skillsdmc.com.au](http://www.skillsdmc.com.au)

### Related Jobs

Chemical Plant Operator (p 111); Laboratory Worker (p 240); Metallurgist (p 271); Miner (p 276); Minerals Process Engineer (p 277); Mining Engineer (p 278).

## Minerals Process Engineer

Minerals process engineers transform low value impure minerals, recycled materials and by-products of other processing operations into commercially valuable products.

Minerals process engineers may perform the following tasks:

- study and apply chemical and process metallurgy techniques
- coordinate recovery of samples for laboratory analysis and testing
- choose and use a combination of treatments to produce the desired quality of products at the lowest cost
- prepare operational budgets to evaluate the economic efficiency of processes.



Minerals process engineers are employed in process design, development, control and management.

Minerals process engineers may work on site in remote areas. They often work for international companies and may travel or work overseas.

#### Personal Requirements

- enjoy technical and engineering work
- willing to contribute and adhere to safety requirements
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work independently or as part of a team
- able to accept responsibility
- interested in engineering and science.

#### Education and Training

To become a minerals process engineer you usually have to study engineering at university with a major in chemical or materials engineering. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, mathematics and physics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Monash University - Clayton Campus:

Bachelor of Engineering, majoring in chemical or materials engineering, 4 years full time or equivalent

##### RMIT University - City Campus:

Bachelor of Engineering (Chemical Engineering), majoring in engineering (chemical) or engineering (metallurgical), 4 years full time

##### University of Melbourne - Parkville Campus:

Bachelor of Science or Bachelor of Commerce, majoring in chemical systems, 3 years full time or equivalent, followed by Master of Engineering (Chemical), 2 years full time

#### Additional Information

Graduates may be eligible to join the Australasian Institute of Mining and Metallurgy (AusIMM), Engineers Australia, or Materials Australia.

Registration or licensing may be required in some instances. Contact the AusIMM (National Office) for further information.

#### Employment Opportunities

Victoria has two aluminium smelters, a large brown-coal mine and gold mines. The majority of minerals process engineers work for mining firms in the field, supervising the extraction of raw materials from mines. A small number work through head offices and, after several years experience, may move into middle or senior management positions.

#### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ [careers@ausimm.com.au](mailto:careers@ausimm.com.au)  
🌐 [www.ausimm.com.au](http://www.ausimm.com.au)

#### Related Jobs

Chemical Engineer (p 110); Materials Engineer (p 261); Metallurgist (p 271); Miner (p 276); Mineral Processing Operator (p 277).

## Mining Engineer ✨

Mining engineers plan and direct the engineering aspects of extracting mineral resources from the earth.

Mining engineers may perform the following tasks:

- conduct investigations of mineral deposits and undertake evaluations in collaboration with geologists, other earth scientists and economists to determine whether the mineral deposits can be mined profitably
- determine the most suitable method of mining the minerals taking into account factors such as the depth and characteristics of the deposit and its surroundings
- prepare the layout of the mine development and the procedure by which the minerals are to be mined
- prepare plans for mines, including tunnels and shafts for underground operations, and pits and haulage roads for open-cut operations, using Computer-Aided Design (CAD) packages
- plan and coordinate the employment of mining staff and equipment with regard to efficiency, safety and environmental conditions
- talk to geologists and other engineers about the design, selection and provision of machines, facilities and systems for mining, as well as infrastructure such as access roads, water and power supplies
- coordinate with the operations supervisor to make sure there is proper implementation of plans
- operate computers to assist with calculations, prepare estimates on the cost of the operation and control expenditure when mines begin production
- oversee the construction of the mine and the installation of the plant machinery and equipment
- make sure that mining regulations are observed, including the proper use and care of explosives, and the correct ventilation to allow the removal of dust and gases
- conduct research aimed at improving efficiency and safety in mines
- establish first aid and emergency services facilities at the mines.

Mining engineers may work on site in remote areas. They often work for international companies and may travel or work overseas.

#### Personal Requirements

- enjoy technical work
- willing to adhere to safety requirements
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work independently or as part of a team
- able to accept responsibility
- able to think and act decisively.

#### Education and Training

To become a mining engineer you usually have to study engineering at university with a major in mining engineering. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.



There are no degrees in mining engineering in Victoria. Courses are widely available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Additional Information

Graduates may be eligible for membership of Engineers Australia.

Registration or licensing may be required. Contact the Australasian Institute of Mining and Metallurgy (AusIMM) for further information.

Graduates are permitted to sit for the Mine Manager's Certificate and to apply for registration as a Chartered Professional Engineer with Engineers Australia after three years of approved industry experience and with the AusIMM after five years.

#### Employment Opportunities

Mining engineering degrees include elements from other disciplines such as geology, metallurgy, commerce, economics and management. This means that graduates are versatile and have the potential to advance rapidly within the minerals and associated industries.

Most mining engineers are employed by mining companies, mining contractors, consultants and government departments. They may also work for companies that manufacture and supply mining machinery or explosives to the mining industry. Mining engineers with wide experience may set themselves up as consulting engineers.

Employment may also be found in mine supervision and management, on site or in head office planning and services. Mining engineers have skills which are readily transferable between employers and may find work interstate.

#### For Further Information

- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ [careers@ausimm.com.au](mailto:careers@ausimm.com.au)  
🌐 [www.ausimm.com.au](http://www.ausimm.com.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- Department of Sustainability and Environment ☎ 13 61 86  
✉ [customer.service@dse.vic.gov.au](mailto:customer.service@dse.vic.gov.au) 🌐 [www.dse.vic.gov.au](http://www.dse.vic.gov.au)

#### Related Jobs

Chemical Engineer (p 110); Civil Engineer (p 116); Driller's Assistant (p 152); Environmental Engineer (p 167); Geological Engineer (p 201); Geologist (p 202); Geophysicist (p 204); Mathematician (p 261); Metallurgist (p 271); Miner (p 276); Mineral Processing Operator (p 277); Petroleum Engineer (p 314); Surveyor (p 389).

## Mobile Plant Operator

Also known as Earthmover, Plant Operator, Bulldozer Operator, Grader Operator, Quarry Face Loader and Scraper Operator.

Mobile plant operators drive backhoes, bulldozers, excavators, front-end loaders, graders, scrapers, skid steer loaders, rollers and forklift trucks to level, excavate, move and load earth, rock and other material.

Mobile plant operators may perform the following tasks:

- prepare machines for operation
- load and unload equipment from low loaders and move it around work sites

- select, change and operate special attachments such as winches, scrub clearers, rippers, pile drivers and rock-breaking hammers
- work from drawings and markers under the direction of supervisors and engineers
- back-fill trenches
- break up paving, rock and similar material by operating hydraulic or pneumatic breakers
- excavate or scrape earth, rock or rubble to the correct level and alignment
- load trucks with excavated fill
- drive machines to and from work sites
- service equipment by cleaning, lubricating and re-fuelling it and make minor adjustments and repairs when necessary
- maintain duty of care for other users and work to occupational health and safety requirements.

The work conditions for mobile plant operators can be hot, muddy, dusty and noisy, but most earthmoving machines have soundproofed and airconditioned cabs for the operator.

#### Personal Requirements

- enjoy practical and manual work
- able to follow precise instructions
- able to work as part of a team
- physically fit
- good eyesight (may be corrected)
- good hand-eye coordination
- able to work without supervision.

#### Education and Training

You can work as a mobile plant operator without formal qualifications. You will probably get some informal training on the job.

You can also become a mobile plant operator through a traineeship in Civil Construction (Plant Operations) or Transport and Logistics (Mobile Crane Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Industry standards often require mobile plant operators to hold a licence to Perform High Risk Work, issued by WorkSafe Victoria. To gain a license, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, and keep an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence, you will need to be at least 18 years of age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Resources and Infrastructure or Transport and Logistics Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Major employers include earthmoving and civil construction contractors, private developers, mining and minerals processing



companies and government authorities. Work projects vary in size and location. Sites may be located in the city, suburbs or country, and are sometimes in remote areas. Employment in the public sector has declined due to a trend towards contracting out earthmoving work to private firms.

Some plant operators may own and operate equipment on a contract hire basis, although the cost of equipment is high.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ education@minerals.org.au 🌐 www.miningcareers.com
- Civil Contractors Federation (VIC) ☎ (03) 9819 5170  
✉ ccfvic@civilcontractors.com 🌐 www.civilcontractors.com
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

#### Related Jobs

Crane Operator (p 136); Forklift Operator (p 195); Waterside Worker (p 434).

## Model

Models wear and display clothes, accessories and other consumer goods and services to promote sales. They may demonstrate new products and services at exhibitions, or pose in front of the public or cameras.

Models may perform the following tasks:

- walk, dance or pose before audiences on mannequin catwalks to display clothing and accessories
- pose in front of cameras wearing fashion clothing or promoting products for advertisement in newspapers, magazines or on billboards
- participate in commercials for television and cinema
- demonstrate new products and services at manufacturers' exhibitions and industry trade shows
- hand out pamphlets or samples of advertising products at exhibitions and shows.

Models may specialise in particular types of modelling such as editorial (publications), commercial (film, TV and photographs for commercial products) and mannequin or catwalk modelling. Models may also work in modelling and deportment schools as teachers.

Models may be required to work under hot, bright lights and model winter clothing in summer, and vice versa.

#### Personal Requirements

- enjoy artistic and creative activities
- dedication and patience
- tall
- well-proportioned facial features and clear skin
- a well-groomed appearance
- good communication skills are essential in promotional work.

#### Education and Training

You can work as a model without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

Some aspiring models complete modelling courses but they are not required as a condition of entry into this career.

Costs, duration and entry requirements may vary between courses. See the online entry for Model at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Prospective models should first approach a reputable model agency who will arrange for a photographic folio and composite card (with personal details such as height and eye colour) to be made for them to help obtain work. The agency will then promote them to clients and to international agencies.

It is advisable to make sure that the agency has a good reputation and is well established in the industry. The modelling agency will charge for the required training, but reputable agencies do not charge money to register.

#### Employment Opportunities

Most models work for clothing firms and department stores, advertising and publicity agencies, and in film or television studios. Some work as teachers in modelling and deportment schools.

Employment opportunities in modelling are very competitive. Many models work part time while undertaking other activities, such as studying, or combine modelling with other paid part time work. The possibility exists for models to work overseas.

Many models retire at around 25 years of age, after which they can move into careers associated with modelling, such as public relations, television presenting or fashion buying and consultancy positions. A model who is well spoken may become a fashion-show compere and coordinator.

#### For Further Information

Contact your chosen modelling agency for further information regarding this occupation.

#### Related Jobs

Actor (p 51); Fashion Coordinator (p 174).

## Model Maker

Model makers construct full-size and scale models of landscape, engineering, architectural, automotive and other industrial designs. They work from scale drawings, plans, photographs and lists of figures or specifications requiring conversion to three-dimensional form.

These models help designers to see how a project, such as a building or a car, looks or works before it is completed.

Model makers may perform the following tasks:

- look at drawings, drafts or samples and consult designers
- choose suitable material, mark out parts, determine layout and cut out pieces using the appropriate cutting equipment for the material being used
- construct models using a variety of adhesives, machinery and hand tools
- operate computer modelling programs
- colour a model using paint, varnish and other finishes
- add details to create authenticity such as windows, road lines and lettering
- construct working models, such as model furnaces, to test if they work properly prior to construction
- comply with local and/or national design standards
- alter models to meet new specifications.



Some model makers, such as automotive clay modellers, may specialise in high-quality artistic work, while others may concentrate on technically accurate models.

Model makers work in industrial research, design and development laboratories, which may be in offices or open workshops.

#### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- able to visualise three-dimensional forms when looking at a technical drawing
- creative and practical
- able to work quickly and accurately
- good at mathematics.

#### Education and Training

You can work as a model maker without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the courses below usually requires Year 12. As subjects can vary between institutions, you should contact the institution for full details.

#### Certificate Courses

*Chisholm Institute of TAFE - Frankston Campus:*

Certificate IV in Residential Drafting

*Gordon Institute of TAFE - East Geelong Campus:*

Certificate IV in Residential Drafting

*Victoria University (TAFE Division) - Newport Campus:*

Certificate IV in Residential Drafting

#### Diploma Courses

*Gordon Institute of TAFE - East Geelong Campus:*

Diploma of Building Design and Technology

*Victoria University (TAFE Division) - Newport Campus:*

Diploma of Building Design and Technology

#### Employment Opportunities

Most model makers work on a contract basis.

There are a number of companies which undertake model making for a wide range of activities, including architectural, engineering and topographical models, promotional displays and even stage props and sculptures.

#### For Further Information

- Australian Institute of Architects (National Office)  
☎ (02) 6121 2000 ✉ national@raia.com.au  
🌐 www.architecture.com.au
- Architects Registration Board of Victoria ☎ (03) 9417 4444  
✉ registrar@arb.vic.gov.au 🌐 www.arbv.vic.gov.au

#### Related Jobs

Architectural Technician (p 71); Engineering Tradesperson - Fabrication (p 164); Industrial Designer (p 223); Museum Officer (p 283); Taxidermist (p 391); Visual Merchandiser (p 430).

## Multimedia Developer

Multimedia developers generate and manipulate graphics, animations, sound, text and video to create integrated multimedia programs.

Multimedia applications include computer-based interactive training, data presentation and information kiosks, CD-ROMs, entertainment and educational products, and multimedia presentations.

Multimedia developers may perform the following tasks:

- talk with clients to see what is required
- investigate, analyse and recommend appropriate equipment and software to achieve the clients' objectives
- prepare flow diagrams and storyboards to outline the product concept
- prepare code to produce the multimedia product
- prepare digital graphics, animations, sound, video, photographs and images for editing
- prepare design concepts
- talk with related graphics, production and engineering experts
- manage the development and implementation of multimedia products.

#### Specialisations

**Author-based Programmer** - applies appropriate multimedia authoring technologies to conceptualise, design, assemble and integrate a variety of images, text, animation and/or sound before selecting and applying the desired program structure to produce a multimedia end-product. This may involve writing scripts, using namespaces and packages and writing extensions. This process is sometimes described as 'authoring a multimedia sequence'.

**Computer-based Graphic Designer** - uses computing technology and specialist software packages to manage the production, interface and integration of various graphics and other media into the multimedia package design. This includes the design of art and copy layouts for CD-ROM and multimedia products. It is possible to further specialise and focus on specific industry sectors such as advertising, corporate design, internet applications or exhibition design.

**Digital Video-sound Editor** - is involved in the computer-based editing of video-sound for multimedia products. Working under instruction from directors, editors make decisions with regard to the mood, pace and climax of sound effects. This involves working closely with other professional staff to analyse, evaluate and select sound effects for integration with images and other mediums.

**Instructional Designer** - designs and develops educational products, learning support resources and delivery/assessment tools. Instructional designers increasingly use the flexibility offered by multimedia applications to target specific learning objectives and audiences.

#### Personal Requirements

- aptitude for computing and design
- creative, with artistic flair
- ability to both lead and follow instructions

**www.it.monash.edu**



**MONASH University**  
Information Technology



- strong client focus
- commitment to understanding and using new technology
- ability to meet deadlines
- understanding of colour and form
- patient and attentive to detail.

#### Education and Training

To become a multimedia developer you usually have to complete a certificate or diploma in information technology, specialising in multimedia studies. However, entry to this occupation may be improved if you have a degree in multimedia studies.

Entry to the certificate and diploma courses usually requires at least Year 10. To get into the degree courses you usually need to gain your VCE. Applicants may also be required to present a folio of work. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Certificate and diploma courses in this area are widely available and offered by various Registered Training Organisations, including TAFE. Degree courses in this area are also widely available at most universities in Victoria. Check institution handbooks for course information.

Costs, duration and entry requirements may vary between courses. See the online entry for Multimedia Developer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a multimedia developer through a traineeship in Interactive Digital Media or Information Technology (Multimedia). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Membership with the Australian Computer Society is available to those who hold or are working towards suitable qualifications.

#### Employment Opportunities

Multimedia developers may work for a wide range of organisations, including the IT industry, media and publishing companies, web design practices, animation and design studios, educational institutions and advertising agencies. They often work as part of a team, but can work individually or on a freelance basis. With experience and sufficient start-up money, there are opportunities for self-employment.

Multimedia development is a dynamic growth industry that has developed out of a blending of creative production, the arts and the innovative technical presentation techniques provided by a range of IT platforms.

#### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)
- Design Institute of Australia (National Office)  
🌐 [www.design.org.au](http://www.design.org.au)

#### Related Jobs

Artist (p 75); Copywriter (p 131); Film, Stage and Television Director (p 178); Games Developer (p 198); Graphic Designer (p 206); Industrial Designer (p 223); Information Technology Educator (p 228); Journalist (p 239); Teacher - Primary (p 396); Teacher - Secondary (p 397); Training Officer (p 414); Web Designer/Developer (p 435).

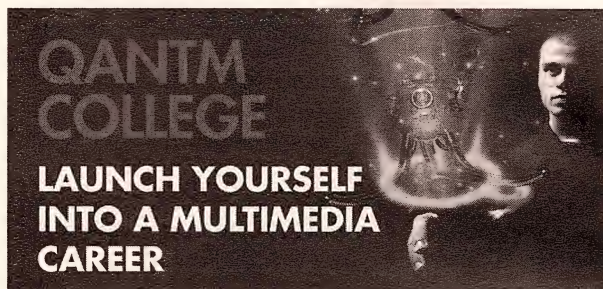
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### Museum Attendant

Also known as Gallery Attendant.

Museum attendants work in museums, greeting visitors and answering their questions, and protecting the exhibits.

Museum attendants may perform the following tasks:

- conduct tours of museums or galleries
- answer enquiries
- direct visitors to specific exhibits
- give visitors information about exhibits
- control visitors' access to exhibits
- check that all visitors have left at closing time
- prevent unauthorised entry
- inspect membership cards, admission passes and tickets
- patrol museum or gallery to ensure security.

Museum attendants work mainly indoors but may be required to travel with exhibitions and displays.

#### Personal Requirements

- enthusiasm for museums or art galleries
- able to process large amounts of information
- outgoing and friendly nature
- good communication skills
- able to handle groups of people with ease.

#### Education and Training

You can work as a museum attendant without formal qualifications. You will probably get some informal training on the job.

Employers usually prefer those who can demonstrate a genuine interest in the collection. Carrying out volunteer work may improve employment prospects.

You can also become a museum attendant through an apprenticeship in Museum Practice or Tourism. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.



### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Museum and Library/Information Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Museum attendants are employed in a variety of roles, usually by a museum, but they can also work in other institutions such as galleries, universities or other cultural institutions.

Many people volunteer as a museum attendant prior to obtaining paid employment.

### For Further Information

- Museums Australia (National Office) ☎ (02) 6273 2437  
✉ [ma@museumsaustralia.org.au](mailto:ma@museumsaustralia.org.au)  
🌐 [www.museumsaustralia.org.au](http://www.museumsaustralia.org.au)
- Museum Victoria Bookings and Enquiries ☎ 13 11 02  
✉ [jobs@museum.vic.gov.au](mailto:jobs@museum.vic.gov.au) 🌐 <http://museumvictoria.com.au>

### Related Jobs

Conservator (p 127); Museum Curator (p 283); Museum Officer (p 283).

## Museum Curator

Also known as Exhibitions Officer and Gallery Curator.

Museum curators manage, organise and develop museum collections, and conduct related research.

Museum curators may perform the following tasks:

- acquire items for the collections in their care
- examine items to determine condition and authenticity
- identify and classify specimens, and arrange conservation and restoration work
- keep and maintain records about all items in the collection
- organise and participate in display teams which may involve travelling or arranging for loan exhibitions
- initiate and maintain research and publication programs, and establish networks and assist other professionals on request
- lecture and write about the collections, and answer public enquiries
- supervise support staff and organise administrative duties associated with the use and care of the collection.

Museum curators usually specialise in a broad discipline, including anthropology, art, decorative arts, natural history, social history, science or technology, and within that discipline they are generally recognised as authorities on one or more specific subject areas.

Museum curators work mainly indoors, but they may be required to travel extensively on field study. In small museums, one curator may be responsible for the entire management of the institution and its collections.

### Specialisation

**Museum Education Officer** - initiates, develops and administers special programs to inform and educate visiting school classes and other sections of the public about the collections and exhibitions. Education officers may also organise and travel with mobile exhibitions to suburban or country areas.

Education officers often combine previous career experience in education, learning or community development work with a career in museums.

### Personal Requirements

- appreciation of the history of science, the environment or the arts
- patience
- able to pay attention to detail
- an objective, methodical approach to work
- good oral and written communication skills
- a good imagination
- demonstrated ability for scholarly work.

### Education and Training

To become a museum curator you usually have to complete a degree at university with a major in curatorship or cultural heritage management. Alternatively, you can complete a degree specialising in anthropology, archaeology, fine arts, history or biology, followed by a postgraduate qualification in museum studies. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course and may require previous museum experience. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or the universities you are interested in for more information as requirements may change.

Relevant degree courses are offered at most universities throughout Victoria. Refer to institution handbooks for further details.

### Employment Opportunities

Curators generally work in museums and art galleries, although they may be required to travel to seek work.

### For Further Information

- Museums Australia (National Office) ☎ (02) 6273 2437  
✉ [ma@museumsaustralia.org.au](mailto:ma@museumsaustralia.org.au)  
🌐 [www.museumsaustralia.org.au](http://www.museumsaustralia.org.au)
- Museums Australia (VIC) ☎ (03) 8341 7344  
✉ [mavic@mavic.asn.au](mailto:mavic@mavic.asn.au) 🌐 [www.mavic.asn.au](http://www.mavic.asn.au)
- Museum Victoria Bookings and Enquiries ☎ 13 11 02  
✉ [jobs@museum.vic.gov.au](mailto:jobs@museum.vic.gov.au) 🌐 <http://museumvictoria.com.au>

### Related Jobs

Anthropologist (p 68); Archaeologist (p 69); Arts Administrator (p 76); Conservator (p 127); Cultural Heritage Officer (p 138); Historian (p 212); Museum Attendant (p 282); Museum Officer (p 283).

## Museum Officer

Also known as Art Gallery Technician and Museum Technician.

Museum officers prepare specimens for collections, and construct and arrange museum and art gallery exhibits.

Museum officers may perform the following tasks:

- clean fossil specimens, mould and restore skeletal parts, construct skeletal mounts, re-assemble fragmented specimens and make substitute pieces
- construct models and make castings or moulds of artefacts and objects for display purposes
- mount and prepare objects for display according to conservation requirements
- design and build display cases, mounts and other exhibition presentation devices
- design, prepare and install display hardware
- receive, ship, pack and unpack exhibits
- maintain museum files
- supervise and assist other workers in the cleaning, cataloguing, labelling and storing of specimens.



Museum officers work mainly indoors, although extensive fieldwork may be required in some areas.

#### Personal Requirements

- patience and a methodical approach to work
- able to pay attention to detail
- aptitude for design.

#### Education and Training

To become a museum officer you usually have to complete a traineeship in Museum Practice. Entry requirements may vary, but most employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Most public galleries, museums and National Trust properties have volunteer programs, which usually include training and practical experience. Contact the volunteer coordinator at the organisations you are interested in for details.

The Australia Resources Directory for the Museum Community is available on the Australian Museum Online website at <http://australianmuseum.net.au>.

#### Employment Opportunities

Demand for this occupation is highly dependent on the level of government funding available for museums.

Higher positions such as senior museum officer are filled by advertisement and competition for vacancies is strong. Appointment to a particular level will depend upon qualifications and experience. See the Conservator profile for more details.

#### For Further Information

- Museums Australia (National Office) ☎ (02) 6273 2437  
✉ [ma@museumsaustralia.org.au](mailto:ma@museumsaustralia.org.au)  
🌐 [www.museumsaustralia.org.au](http://www.museumsaustralia.org.au)
- National Gallery of Victoria ☎ (03) 8620 2222  
✉ [enquiries@ngv.vic.gov.au](mailto:enquiries@ngv.vic.gov.au) 🌐 [www.ngv.vic.gov.au](http://www.ngv.vic.gov.au)

#### Related Jobs

Conservator (p 127); Model Maker (p 280); Museum Attendant (p 282); Museum Curator (p 283); Taxidermist (p 391).

## Music Therapist

Music therapists provide therapeutic programs through the planned and controlled use of music to help people of all ages, including those with special needs because of social, emotional, psychiatric, physical or intellectual impairments.

Music therapists may perform the following tasks:

- assess individuals and groups to identify abilities and needs and develop objectives that address individual needs
- plan and carry out specific music activities to address the client's needs and concerns, such as singing, moving to music, reflective music listening, playing music, music and drama, improvisation, song writing and other creative activities
- assess, monitor and evaluate the effectiveness of the musical and therapeutic interactions.

Music therapists require a large repertoire of popular songs relevant to all age groups, and the ability to explore, interpret and develop the

creative use of sound. Music therapists work with children and adults in individual and group settings.

#### Personal Requirements

- an appreciation for a wide range of music styles
- high level of musical ability
- able to respect and relate to people of all ages, cultures and backgrounds.

#### Education and Training

To become a music therapist you usually have to study music at university, followed by a masters degree in music therapy. Graduates with a degree in psychology or a relevant allied health field may also be considered for postgraduate degrees if they possess an appropriate level of musical experience.

To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and music are normally required. Applicants may also be required to attend an audition and undertake a musicianship test. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree. Contact the universities you are interested in for more information as requirements may change.

Bachelor degrees in music are widely available in Victoria. For full details, refer to the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Additional Information

On successful completion of an appropriate course, graduates may be eligible for registration by the Australian Music Therapy Association. Employers are increasingly looking to hire music therapists registered with the Association.

#### Employment Opportunities

Music therapists work in homes, schools, child care centres, community support groups, hospitals, clinics, community centres, nursing homes, hospices, rehabilitation centres and centres for people with disability. Music therapists are also employed in private practice.

Job opportunities depend on the number of people in the community requiring this type of service, level of awareness in the community of the benefits of music therapy and government policy, legislation and funding for community health care, education and social services.

#### For Further Information

- Australian Music Therapy Association Inc (National)  
✉ [info@austmta.org.au](mailto:info@austmta.org.au) 🌐 [www.austmta.org.au](http://www.austmta.org.au)
- Musicians' Union of Australia (VIC) ☎ (03) 9355 7620  
✉ [melbourne.secretary@musicians.asn.au](mailto:melbourne.secretary@musicians.asn.au)  
🌐 [www.musicians.asn.au](http://www.musicians.asn.au)

#### Related Jobs

Art Therapist (p 75); Diversional Therapist (p 150); Musician (p 284); Occupational Therapist (p 299).

## Musician

Also known as Singer.

Musicians write, arrange, orchestrate, perform and conduct musical compositions.

Musicians may perform the following tasks:

- study and rehearse musical scores prior to performances
- play music in recital, as an accompanist, or as a member of an orchestra, band or other musical group, from score or by memory
- make recordings for sale on compact disc or online



- make videos to represent the music
- provide musical backing for television commercials, popular recordings, radio, television or film productions
- improvise, transpose, compose, or arrange music
- play under the direction of a conductor.

A musician may perform a variety of tasks depending on their area of specialisation.

#### Specialisations

**Classical Musician** - works to very high technical levels and develops high levels of ensemble skills. Classical musicians must develop the ability to adapt to the demands of international conductors and soloists. They develop a knowledge of classical, opera and ballet repertoire, and may undertake additional training at music schools overseas.

**Composer** - creates musical compositions for films, plays, television, concerts and operas. Composers may specialise in one type of music or in compositions for particular instruments and they may write words to accompany the music.

**Conductor (Music)** - conducts instrumental groups such as symphony orchestras and large bands. They can audition and select members of a group and choose the music to accommodate their talents and abilities, and to suit different types of performance events. Conductors become familiar with the complete musical score, conduct rehearsals, instruct players on their performances and try to make the best use of each instrumentalist's talents. They conduct performances in which they control factors such as balance, rhythm, dynamics and timing, to create an effect consistent with their own interpretation of the score.

**Ethnomusicologist** - studies music in its cultural context and seeks to understand the relationship between musical cultures. They may work as composers, performers, lecturers or researchers. They usually work within an academic institution such as a university, exploring, studying, researching and writing scholarly articles on music and musicians. Fieldwork in various regions of the world may be required, where they record music from a particular area, an ethnic group or a particular performing group.

**Jazz Musician** - often recognised for their superior skills in improvisation. Their ensemble skills are similar to those required in chamber groups.

**Music Arranger** - transcribes musical compositions or melodic lines to adapt and modify them for particular performance formats, such as orchestras, bands, choral groups or solo performance. People with these skills may proceed to a number of jobs, including music teacher, music director, conductor or record producer.

**Music Critic** - is employed by major print media publishers to report on the performing arts. Local areas usually have part-time critics who report regularly on local and visiting artists in the local press.

**Musicologist** - interprets musical history and style. They generally work as lecturers.

**Performing Musician/Instrumentalist** - may play one or more instruments in recital performances. This may be in accompaniment only, or as a member of orchestras, bands or other musical groups including chamber ensembles. Musicians spend a number of hours each day in private practice to prepare music for rehearsals and performance. They may record and program backing tracks and/or electronic devices that may be used in performance. Musicians may need to listen to and analyse music in either written or recorded form to build their repertoire. They also need to maintain and prepare their

instruments for peak performance. They may compose and write music and lyrics, or combine and/or arrange music across a number of musical styles including classical, pop, jazz, folk, country, show music and various forms of dance music.

**Vocalist** - may work solo or with an accompanist, or permanently or casually with bands, ensembles, orchestras or in concert opera. Vocalists develop a repertoire and many specialise in a particular style, or work on stage, radio and television. They may entertain as soloists, perform in a group and/or play an instrument. Vocalists need to train and develop their voice and capacity to sing, as well as develop presentation skills. They need to understand music and be able to work with bands and orchestras.

Musicians must be prepared to work irregular hours and spend long periods in practice and rehearsal. Some musicians work in areas unrelated to music to support themselves. Many professional musicians with experience in all styles combine music performance and music teaching careers in Australia.

#### Personal Requirements

- musical skills
- stamina to perform at peak level
- self-confidence, motivation, dedication and determination
- good communication skills
- able to concentrate for long periods
- mastery of one or more styles of music such as classical, jazz or pop
- flair for entertainment.

#### Education and Training

To become a musician you usually have to complete formal training in a chosen musical field, although some musicians are self-taught. Certificate and diploma courses with studies in music are widely available in Victoria.

Entry to the certificate and diploma courses usually requires at least Year 10. To get into the degree courses you usually need to gain your VCE/Year 12 with English and music performance. Applicants may also be required to attend an audition and interview, and/or sit a musicianship/music proficiency theory test. Contact the institutions you are interested in for more information as requirements may change.

Costs, duration and entry requirements may vary between courses. See the online entry for Musician at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

Degree courses with major studies in music are widely available in Victoria. Contact your preferred institution for further details.

#### Employment Opportunities

Musicians work in a number of different areas. Many are self-employed or are engaged through agents. They may become music or singing teachers and set up their own practice or be appointed to the staff of a primary or secondary school, conservatorium, private music school or university. There are also careers available with the Australian Broadcasting Corporation or commercial radio and television, with the Australian Defence Force, in music librarianship, arts administration, music journalism, music and instrument sales, music and record publishing, music direction and musicological research.

Employment for musicians may be affected by the level of government funding available, particularly for orchestras and opera companies. The level of activity in the hospitality industry may also affect employment opportunities.

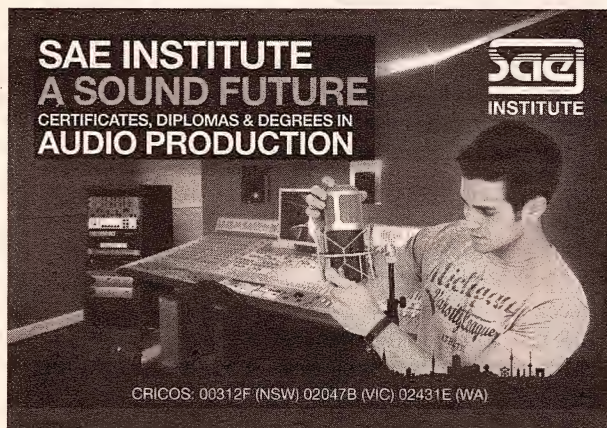


#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Musicians' Union of Australia (VIC) ☎ (03) 9355 7620  
✉ [melbourne.secretary@musicians.asn.au](mailto:melbourne.secretary@musicians.asn.au)  
☎ [www.musicians.asn.au](http://www.musicians.asn.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Actor (p 51); Arts Administrator (p 76); Dancer (p 140); Entertainer (p 166); Music Therapist (p 284); Production Crew Member (p 334); Teacher - Music (p 394).



## N

### Nail Technician

Nail technicians perform manicures and pedicures including decorative nail art, application of artificial nails, nail repair, and other specialised hand and foot treatments.

Nail technicians may perform the following tasks:

- apply gel and acrylic nail enhancements and extensions
- perform manicures and pedicures
- use electrical equipment for nails
- apply decorative and airbrushed nail art
- conduct financial transactions
- perform reception duties (e.g. receive bookings and arrange appointments)
- perform routine housekeeping duties
- maintain client records
- provide advice on and sell nail products.

Working as a nail technician can be physically demanding. Repetitive activities and sitting for long periods can cause strain, while chemicals such as those used in acrylics and polish removers may pose a health risk. Personal protective equipment such as gloves, aprons, dust masks and safety glasses should be worn to minimise risk.

Nail technicians have a high level of public contact.

#### Personal Requirements

- well-groomed at all times
- good health
- pleasant and tactful manner
- a genuine interest in people
- good interpersonal skills
- great hand-eye coordination

- patience
- creative and artistic ability.

#### Education and Training

You can work as a nail technician without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

Entry to certificate courses usually requires at least Year 10. Many institutions in Victoria offer certificates in nail technology. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses.

See the online entry for Nail Technician at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a nail technician through a traineeship in Nail Technology. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Before selecting a course, check with potential employers to make sure the course meets their requirements. Employers are less likely to consider people who have completed a short course or have qualifications not recognised by the industry. Nail technicians with nationally accredited qualifications may work throughout Australia.

#### Employment Opportunities

Nail technicians work mainly in private salons. The growing number of nail salons in shopping centres has increased demand for qualified and well-trained nail technicians.

Nail technicians also work in beauty salons with beauty therapists. Employment prospects in these salons may be improved if you have beauty therapy qualifications.

Many nail technicians are self-employed and may visit clients' homes, or work from mobile vans or in their own homes.

#### For Further Information

- Australian Professional Fingernails Association ☎ 0448 546 004 (mobile call charges apply) ✉ [secretary@apfanails.com.au](mailto:secretary@apfanails.com.au) ☎ [www.apfanails.com.au](http://www.apfanails.com.au)
- Advanced Association of Beauty Therapists ☎ 1300 309 022 ✉ [info@aabth.com.au](mailto:info@aabth.com.au) ☎ [www.aabth.com.au](http://www.aabth.com.au)
- Service Skills Australia ☎ [www.serviceskills.com.au](http://www.serviceskills.com.au)

#### Related Jobs

Beauty Therapist (p 85); Hairdresser (p 208); Make-up Artist (p 253).

### Nanny

Nannies care for children as employees in private households.

Nannies may perform the following tasks:

- care for babies or young children by feeding, washing and dressing them and by supervising their play and learning activities
- plan creative play and learning activities and organise meal and sleep times
- develop and/or maintain appropriate routines
- communicate with parents to make sure that their preferences regarding childcare are maintained
- safeguard children against potential dangers, such as swimming pools, kitchen utensils, poisons and stairs
- take children to school, kindergarten and other activities
- plan and prepare nutritious snacks and meals for children and possibly the family



- care for and maintain children's belongings, bedrooms and play areas
- take sole charge of children for extended periods while parents are absent from home
- arrange and supervise outings
- apply first aid and take appropriate action in cases of accident or emergency
- perform light housekeeping duties such as laundry or meal preparation as they relate to children in their care.

Nannies employed full time may be required to live in their employers' homes. They may also be required to work in the evenings and on weekends.

#### Specialisation

**Governess** - supervises and tutors children (including school-age children) in educational programs within private households. In most instances, these positions are in remote locations.

#### Personal Requirements

- patience, maturity and a willingness to accept responsibility
- well organised
- able to work with young children
- able to work unsupervised
- good communication skills
- reliable
- able to multi-task
- flexible and resourceful.

#### Education and Training

You can work as a nanny without formal qualifications, but employers usually like at least Year 10. However, entry to this occupation is improved if you have qualifications.

Entry to the certificate courses usually requires at least Year 10. Entry to the diploma courses usually requires completion of Year 12. Applicants may be required to attend an interview. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Nanny at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a nanny through a traineeship in Children's Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Certificate and diploma courses in children's services and out of school hours care are widely available and are offered by Registered Training Organisations, including TAFE. Contact your preferred institution for further details.

#### Additional Information

This is an area where personal requirements such as maturity and relevant experience are important.

To work as a nanny you will need an approved child care first aid certificate and a police clearance, as well as extremely good references. You also need to obtain a Working with Children Check issued by the Department of Justice.

#### Employment Opportunities

Employers and agencies have a strong preference for applicants with recognised qualifications and references. Opportunities for qualified Australian nannies are available overseas, especially in the United Kingdom, Europe, the USA and Canada.

#### For Further Information

- Community Services and Health Industry Skills Council Ltd  
🌐 [www.careersthatter.com.au](http://www.careersthatter.com.au)
- DIAL-AN-ANGEL ☎ 1300 721 111  
✉ [administration@dialanangel.com](mailto:administration@dialanangel.com) 🌐 [www.dialanangel.com](http://www.dialanangel.com)

#### Related Jobs

Child Care Coordinator (p 112); Child Care Worker (p 113); Family Day Carer (p 171); Teacher - Early Childhood (p 392); Teacher - Primary (p 396); Youth Worker (p 442).

## Natural Resource Manager

Natural resource managers develop conservation plans for nature parks, land and other natural resources, so that people can use these resources in an ecologically sustainable way.

Natural resource managers may perform the following tasks:

- assess techniques for flora and fauna conservation
- monitor components of the environment (e.g. soil, water and air)
- develop practical solutions in environmental management and rehabilitation
- develop techniques to make sure there is ecologically sustainable development and use of vital land and water resources
- undertake plant and animal pest management
- organise geological, plant and animal surveys
- undertake laboratory work
- develop resource management policy
- work with government and environmental groups
- run community education programs.

Natural resource managers specialising in water and soil resources may apply their skills to several areas. These include irrigation, drainage, water supply, water catchment management, pollution control and rehabilitation after mining activities.

Natural resource managers specialising in land and biological resources work in agencies where they can apply ecological and planning principles to the management of renewable resources such as forests and crops.

#### Personal Requirements

- interested in conservation and management of the environment
- able to grasp diverse scientific information
- good oral and written communication skills
- able to work indoors and outdoors
- patience and perseverance
- good project management skills.

#### Education and Training

To become a natural resource manager you usually have to complete a diploma in conservation and land management. However, entry to this occupation may be improved if you have a degree in natural resource management. It is also possible to become a natural resource manager by completing a degree in one of the natural sciences. Entry to the diploma and degree courses usually requires you to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Most universities in Victoria offer degrees in natural resource management or related areas. Contact your preferred institution for further details.



#### Diploma Courses

TAFE Victoria - various locations:

Diploma of Conservation and Land Management

#### Employment Opportunities

Natural resource managers are employed in areas of catchment management, land care, recreation, research, soil conservation and wildlife management. They work in universities; the minerals industry; government agencies that manage community-owned land, such as conservation parks, forest or local government reserves and crown land; and advise on the management of land.

With greater community concern about environmental issues and increased demand for government accountability, resource management is a growing field. However, competition for entry-level positions is very high. Gaining practical experience in conservation and land management is recommended.

#### For Further Information

- Department of Agriculture, Fisheries and Forestry, Australia  
☎ (02) 6272 3933 🌐 [www.daff.gov.au](http://www.daff.gov.au)
- Department of Primary Industries ☎ 13 61 86  
✉ [customer.service@dpi.vic.gov.au](mailto:customer.service@dpi.vic.gov.au)  
🌐 <http://new.dpi.vic.gov.au>
- Greening Australia VIC ☎ (03) 9450 5300  
✉ [general@gavic.org.au](mailto:general@gavic.org.au) 🌐 [www.greeningaustralia.org.au](http://www.greeningaustralia.org.au)

#### Related Jobs

Agricultural and Resource Economist (p 56); Biotechnologist (p 89); Environmental Scientist (p 169); Forester (p 194); Geographer (p 200); Geologist (p 202); Landcare Worker (p 241); Park Ranger (p 309); Pest and Weed Controller (p 313); Primary Products Inspector (p 330).

## Natural Therapist 🌿

Also known as Natural Medicine Practitioner.

Natural therapists use a range of complementary medical techniques and remedies (including traditional Chinese medicine, homeopathy, herbalism and myotherapy) to diagnose, treat and prevent physical illness or dysfunction.

Natural therapists may perform the following tasks:

- analyse patients' eating habits and develop personalised nutrition plans
- prescribe natural medicines such as herbal remedies, vitamin compounds and mineral supplements
- use organic techniques to stimulate the body's capacity for self-healing
- manually manipulate the musculo-skeletal system to correct postural, muscular or skeletal disorders
- examine the iris (coloured part of the eye) to analyse and treat illness in various organs of the body (iridology).

#### Specialisations

**Naturopath** - provides holistic remedies for physical ailments by assessing the client's lifestyle, including mental, emotional, nutritional and physical habits, and prescribing necessary changes (as well as herbal and natural medicines) to encourage the maintenance of a lifestyle that supports health and wellbeing.

**Herbalist** - prescribes and prepares natural remedies specific to their clients' health profiles, using plants and plant parts. These remedies can take the form of tablets, capsules, teas, tinctures, extracts, essential oils (aromatherapy) and other herbal preparations.

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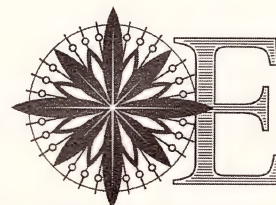
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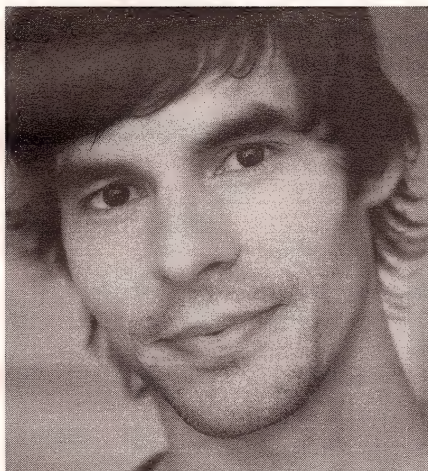
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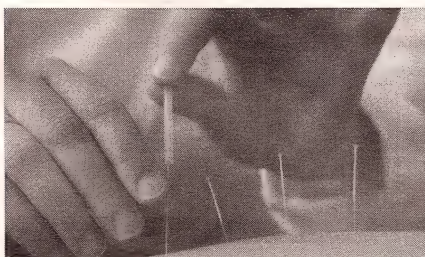
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**Homeopath** - prescribes medicines and therapeutic measures to assist the natural tendency of the body to heal itself. A homeopath takes into account the individual's whole physical and emotional environment as well as the specific symptoms of illness.

**Remedial Therapist/Myotherapist** - uses postural assessment as the basis for a treatment plan aimed at restoring the body to its ideal state. This generally involves the manual realignment of muscles, joints, ligaments and tissues which have become damaged or misaligned.

**Aromatherapist** - blends therapeutic plant oils including essential oils and uses methods such as topical application, massage and inhalation to promote psychological and physical well-being.

**Traditional Chinese Medicine Practitioner** - aims to harmonise the body's vital energies into a functioning whole through the use of traditional massage, heat, moisture, acupuncture and herbs to ensure the correct distribution of energy throughout the body.

#### Personal Requirements

- desire to help people achieve good health
- committed to promoting preventive medicine as a complement to conventional medical treatments
- a mature and confident personality
- good communication skills.

#### Education and Training

To become a natural therapist you usually have to complete an advanced diploma or a degree in the natural therapy field. Entry to the courses below usually requires you to gain your Year 12/VCE and an interview. Prerequisite subjects, or assumed knowledge, in one or more of English and any two units of science is normally required. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

You may be able to study through distance education. See the Learning Pathways section for more information.

#### Diploma Courses

*Endeavour College of Natural Health - Melbourne Campus:*

Advanced Diploma of Homeopathy

*Holmesglen Institute of TAFE - Waverley Campus:*

Advanced Diploma of Naturopathy (entry via diploma)

*TAFE Victoria - various locations:*

Advanced Diploma of Remedial Massage (Myotherapy)

#### Degree Courses

*Endeavour College of Natural Health - Melbourne Campus:*

Bachelor of Health Science (Homeopathy), 4 years full time or equivalent

Bachelor of Health Science (Musculoskeletal Therapy), 3 years full time or equivalent

Bachelor of Health Science (Nutritional Medicine), 3 years full time or equivalent

Bachelor of Health Science (Western Herbal Medicine), 3 years full time or equivalent

Bachelor of Health Science (Naturopathy), 4 years full time or equivalent

*Southern School of Natural Therapies:*

Bachelor of Health Science - Chinese Medicine, 4 years full time or equivalent

Bachelor of Health Science - Clinical Myotherapy, 4 years full time or equivalent

Bachelor of Health Science - Naturopathy, 4 years full time or equivalent

#### Additional Information

Natural therapy is not a registered health profession. However, national professional bodies such as the Australian Traditional Medicine Society and the Australian Natural Therapists Association set standards for membership.

#### Employment Opportunities

Due to the increasing awareness of alternative forms of medicine, natural therapy is becoming a more widely recognised industry. Natural therapists usually work in private practices, and success depends largely upon the local community's willingness to receive (and pay for) alternative medical treatments. Other career options are available through group practices, research, consultancy, government agencies or in industries such as health food and manufacturing of natural products.

#### For Further Information

- Australian Natural Therapists Association ☎ 1800 817 577 (FREECALL) ✉ info@anta.com.au 🌐 www.anta.com.au
- Australian Traditional Medicine Society ☎ (02) 9809 6800 ✉ info@atms.com.au 🌐 www.atms.com.au

#### Related Jobs

Acupuncturist (p 52); Chiropractor (p 114); Massage Therapist (p 258); Nutritionist (p 298); Trichologist (p 419).

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## Naval Architect

Naval architects design and oversee the construction, survey and repair of marine craft and floating structures, such as naval craft, passenger and cargo ships, submarines, high-speed ferries and catamarans, tugs, boats, yachts and oil rigs.

Naval architects may perform the following tasks:

- prepare preliminary designs by consulting with clients such as ship owners, ship builders, shipping organisations and maritime research institutes
- estimate the initial vessel construction costs and lifetime running costs of a vessel
- work out the most suitable type and size for a vessel and make sure that proposed designs meet performance and cost requirements
- determine the proportions and shape of the hull (body) of the vessel
- design accommodation and cargo areas
- make calculations relating to the structural and mechanical aspects of design, construction and repair
- make calculations relating to the stability of the vessel, and prepare the stability book to go on board the vessel for the use of the master and officers
- supervise other people who prepare detailed designs, specifications and building contracts
- coordinate the work of other engineers
- obtain plan approval and supervise construction work
- plan, supervise and evaluate dockside and sea trials of the vessel
- survey vessels
- organise repairs and modifications to vessels
- research efficient ways for vessels to move through water
- provide risk assessment and claims management for insurance.

Naval architects may specialise in structure and design, management, cost calculations, manufacturing processes, research, mechanical practices, hydrodynamics and hydrostatics, stability, propulsion, and systems engineering.



They work in a variety of places from drawing offices to shipyards and on board for sea trials.

#### Personal Requirements

- enjoy technical and engineering activities
- aptitude for mathematics and physics
- good oral and written communication skills
- aptitude for computing and technical design
- practical and creative ability
- able to work independently or as part of a team
- able to accept responsibility
- interested in the marine environment.

#### Education and Training

To become a naval architect you usually have to study engineering at university with a major in naval architecture, marine and offshore systems, or ocean engineering. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more English, mathematics, chemistry and physics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

There are no suitable courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

Students who complete two years of a 4-year mechanical engineering degree in their home state may qualify for transfer to the third year of the naval architecture course at the University of New South Wales. You should contact the university before applying for the course to check on transfer arrangements. See the entry for Mechanical Engineer for information on mechanical engineering courses.

#### Additional Information

Students and graduates can apply for membership of Engineers Australia and the Royal Institution of Naval Architects (RINA). RINA offers free student membership, information and guidance on how to progress to becoming a chartered professional naval architect.

#### Employment Opportunities

Naval architects can be employed in naval architecture consultancies, shipyards, international ship classification societies, boat and shipbuilding firms, boat and ship repair and maintenance companies, port and harbour authorities, shipping lines and offshore engineering oil and gas companies.

Opportunities may also exist with mining companies engaged in offshore exploration and with manufacturers of marine auxiliary machinery, navigational aids and communications equipment.

#### For Further Information

- Careers Centre, Engineers Australia ☎ 1300 366 613  
✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au)  
🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- The Royal Institution of Naval Architects, Australian Division (National Office) ☎ 0403 221 631 (mobile call charges apply)  
✉ [rina.austdiv@optusnet.com.au](mailto:rina.austdiv@optusnet.com.au)  
🌐 [www.rina.org.uk/australia.html](http://www.rina.org.uk/australia.html)

#### Related Jobs

Civil Engineer (p 116); Electrical Engineer (p 156); Marine Engineer (p 255); Marine Surveyor (p 256); Materials Engineer (p 261); Mechanical Engineer (p 263).

## Navy Officer

Navy officers manage, lead, train and take responsibility for maintaining the team spirit and safety of the Navy's non-commissioned officers and sailors in both peacetime and wartime.

Navy officers mainly work in the Seaman, Aviation, Supply and Engineering fields as well as in various support specialisations. Women can work in all areas of the Navy.

A Navy officer may specialise as an/a:

**Aeronautical Engineering Officer** who maintains Navy aircraft and associated systems.

**Aviation Officer (Observer)** who conducts a range of tasks such as navigation, identifying other ships or operating weapons on board Navy aircraft.

**Aviation Officer (Pilot)** who flies Navy planes and helicopters from the Navy Air Station in NSW or from vessels at sea.

**Dental Officer** who diagnoses and treats teeth and mouth problems of Navy personnel.

**Legal Officer** who practises military and discipline law, civil and administrative law, and international and operations law, assisting boards of inquiry, appearing before courts martial or providing legal aid to Navy personnel.

**Marine Engineering Officer** who is responsible for maintaining a ship's mechanical and electrical systems and repairing any damage to the structure of the vessel.

**Medical Officer** who provides health services for Navy personnel in Navy hospitals, on board ships or in emergency situations.

**Nursing Officer** who is responsible for the general health of all personnel and may become involved in specialist areas like occupational health and safety.

**Seaman Officer** who is responsible for the control and safety of the ship. With further training they can specialise in Navigation and Warfare.

**Supply Officer** who manages the Navy's purchasing and distribution systems, personnel, finances, logistics planning, catering and financial accounting.

**Training Systems Officer** who is responsible for overseeing the design, quality control and delivery of training in the Navy.

**Weapons Systems Officer** who is responsible for the maintenance and functioning of a ship's weapons and their systems. Onshore they perform duties in the technical training of sailors and the maintenance of shore installations.

#### Personal Requirements

- able to lead and motivate others
- prepared to accept responsibility
- meet aptitude and medical requirements
- at least 17 years of age
- Australian citizenship or permanent residency.

#### Education and Training

To become a Navy officer you usually have to gain your VCE with passes in English, mathematics, science and other Navy-approved subjects.

To join the Navy you will need to successfully complete a series of aptitude tests, medical assessments and selection interviews. If you are successful there are four different education and training pathways for Navy officers. You may apply to join the Navy as a non-degree direct entry officer cadet; you may complete a degree through the



Australian Defence Force Academy (ADFA); you may apply as a sponsored undergraduate; or you may apply after completing a selected range of specialist degrees.

Entry to all non-degree officer cadet positions requires the completion of the 22-week New Entry Officer Course at the Royal Australian Naval College (RANC), HMAS Creswell at Jervis Bay, NSW. This is followed by specialist training with the Navy.

Entry to ADFA usually requires you to gain your VCE with an appropriate score in prerequisite subjects relevant to your chosen study. All ADFA students are required to complete a 3-year course of academic study at the Academy, incorporating the Academic Military Education and Training (AMET) program.

Sponsored undergraduates are full-time university students who are currently studying for a degree relevant to the Navy at a recognised tertiary institution. They can apply for sponsored undergraduate entry into the Navy, having completed at least one to two years of their degree, depending on its duration.

Following completion of their specialised degree, they must then complete the 22-week New Entry Officer Course at the Royal Australian Naval College before becoming officers in their specialised field.

People already with specialised degrees may apply for direct entry into the Navy as Graduate Officers. These applicants are required to complete the 22-week New Entry Officer Course at the Royal Australian Naval College before becoming officers in their specialised field. Different specialised occupations have different entry requirements. For full details on this option, contact your nearest Defence Force Recruiting Centre.

#### *Additional Information*

To enter ADFA, you must be aged between 17 and 50 years and have satisfied entry requirements for a relevant degree at the University of NSW or equivalent. Applications usually close in September of the year prior to entry.

Some specialisations may have additional age restrictions. Check the ADF website for full details.

Students who apply to ADFA during Year 11 may be eligible for the ADFA Education Award. The Education Award is presented annually to Year 12 students in recognition of outstanding achievement shown during the ADFA entry recruiting process.

#### *Employment Opportunities*

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round.

#### *For Further Information*

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### *Related Jobs*

Air Force Officer (p 60); Army Officer (p 73); Coxswain (p 135); Navy Sailor (p 292); Navy Technical Sailor (p 293); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Ship's Officer (p 370).

## **Navy Sailor**

Navy sailors undertake a wide range of peacetime and wartime work on land and at sea, including communications, supply, seamanship, motor transport, combat systems operation, hospitality and stores.

A Navy sailor may specialise as an/a:

**Acoustic Warfare Analyst** who works in submarines to monitor the presence of vessels in the maritime environment. This is achieved by detecting and analysing noise patterns from unknown sources.

**Boatswain's Mate** who performs general seamanship duties on board Navy ships. They handle the berthing of ships, use ship's boats and small arms, and maintain the ship and its fixtures.

**Clearance Diver** who is responsible for military diving tasks which may include underwater repairs, the securing and disposal of missiles, projectiles and explosives, and the safe demolition of maritime assets. This role is currently available only to male recruits.

**Combat Systems Operator** who works in the operations room with sensor equipment such as sonar and radar, providing combat data and operations planning support.

**Combat Systems Operator (Mine Warfare)** who operates the combat data system on board the Navy's Mine Hunters, including underwater mine disposal vehicles, radars, sonars and navigation systems.

**Communication and Information Systems Sailor** who is responsible for sending information into, out of and around a ship or base, using radio, satellite equipment and Local Area Networks (LAN).

**Cook** who caters and prepares food for Navy personnel both onshore and in ships and submarines.

**Dental Assistant** who helps with dental procedures, writes reports and looks after the accounting and appointment records.

**Hydrographic Surveyor** who works on board Navy research vessels assisting in compiling data for hydrographic surveys of Australia's coastline and approaches.

**Medical Sailor** who assists with patient care and comfort, hygiene and nursing care, and emergency medical and pre-hospital care of Navy personnel.

**Musician** who performs in Navy bands at concerts, ceremonies, parades and dances, playing a range of musical styles including classical pieces, rock, jazz and swing.

**Steward** who is responsible for the administration and general running of the Officer's Mess, providing hospitality services such as table preparation, bar services and cabin care for officers.

**Stores Naval Sailor** who is responsible for the administration and stock control of Naval Stores items.

**Writer** who is employed within the Navy's personnel organisation as an administrator to run the office on a ship or base, handling pay, accounts and general clerical work or as the personal assistant to a Commanding Officer on a warship.

#### *Personal Requirements*

- Australian citizenship or permanent residency
- at least 17 years of age
- meet aptitude and medical requirements.

#### *Education and Training*

To become a Navy sailor you usually have to complete Year 10 or equivalent with passes in English and mathematics, and sometimes science.

You will also need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

Following selection and employment in the Navy as a sailor, you will need to undertake basic training. This involves an 11-week recruit course at the Navy Recruit Training School located at HMAS Cerberus on Western Port Bay in Victoria, followed by specialist training.



As different specialisations have different entry requirements, you should contact your nearest Defence Force Recruiting Centre for specific requirements.

#### Additional Information

The Australian Defence Force Gap Year program offers students or recent school leavers the opportunity to gain relevant skills and job training over a 12-month period. See the Australian Defence Force website for more details.

#### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round. Visit the Navy section on the Australian Defence Force website for more details about the application dates for individual specialisations.

#### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Air Force General Entrant (p 59); Army Soldier (p 74); Navy Officer (p 291); Navy Technical Sailor (p 293); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Ship's Master (p 369).

## Navy Technical Sailor

Navy technical sailors are trained for peacetime and wartime work as electronic, marine and aviation specialists and in other technical areas.

A Navy technical sailor may specialise as an/a:

**Aviation Technician (Aircraft)** who maintains, repairs and overhauls the Navy's aircraft and engine systems and components (other than electrical systems) both on land and on board Navy ships.

**Aviation Technician (Avionics)** who maintains and repairs electronic equipment fitted to the Navy's aircraft, such as radio and navigation equipment or anti-submarine warfare systems.

**Electronics Technician** who maintains all electronic and electrical systems on board Navy ships. They are responsible for the hydraulics associated with weapons systems and for all the electronics associated with missiles, sonars and communications equipment.

**Marine Technician** who repairs and maintains a warship's propulsion machinery and ancillary equipment, as well as the hull and all its fittings.

#### Personal Requirements

- enjoy technical work
- Australian citizenship or permanent residency
- at least 17 years of age
- meet medical and aptitude requirements.

#### Education and Training

To become a Navy technical sailor you usually have to complete Year 10 or equivalent with passes in English, mathematics and science with a physics content.

You will also need to successfully complete a series of aptitude tests, medical assessments and selection interviews.

Following selection and employment with the Navy, you will need to undertake basic Navy training. This involves an 11-week recruit course at the Navy Recruit Training School located at HMAS Cerberus on Western Port Bay in Victoria.

This is followed by training lasting up to one and a half years, which varies according to the speciality. Training is provided at either the

RAAF School of Technical Training at Wagga Wagga, NSW or at HMAS Cerberus. Training is followed by a period of service in the Navy.

#### Employment Opportunities

Recruitment into the Australian Defence Force is conducted on an Australia-wide basis all year round.

#### For Further Information

- Defence Force Recruiting Centre (National)  
☎ 13 19 01 (Toll Free) 🌐 [www.defencejobs.gov.au](http://www.defencejobs.gov.au)

#### Related Jobs

Air Force Technician/Tradesperson (p 61); Aircraft Maintenance Engineer (p 63); Army Soldier - Technician (p 74); Electrician (p 160); Light Vehicle Motor Mechanic (p 250); Navy Officer (p 291); Navy Sailor (p 292).

## Newsagent

Also known as Lotteries Agent.

Newsagents run shops that sell and distribute newspapers, magazines and other items such as greeting cards, stationery, books, toys, gifts, art supplies, printer cartridges and confectionery. They may also sell lottery tickets, coupons and Australia Post products.

Newsagents may perform the following tasks:

- receive early morning deliveries of newspapers and arrange home delivery to customers
- distribute supplies of magazines and newspapers to sub-agents such as delis and paper sellers within their boundaries
- arrange delivery of afternoon newspapers
- price goods, re-stock shelves, arrange displays and re-order stock
- serve customers
- use a point of sale system, such as a cash register or EFTPOS
- supervise staff
- prepare the monthly accounts of customers and sub-agents
- negotiate with sales representatives for new products
- act as agents for classified advertisements for newspaper organisations by collecting advertisements and payment from customers
- act as agents for dry cleaners, ticketing companies and some bill payments
- clean and dust the shop.

Newsagents tend to work long hours, beginning early in the morning and working until evening. They often work seven days a week. They may have to stand for long periods.

#### Personal Requirements

- enjoy personal contact with the public
- organised approach and aptitude for business
- able to work with figures
- willing to work long hours.

#### Education and Training

You can work as a newsagent without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have a Certificate IV in Retail Management.

Entry to the certificate course below usually requires completion of a Certificate III in Retail. Contact the institution for full details as requirements may change.

You may be able to study through distance education. See the Learning Pathways section for more information.



You can also gain skills relevant to this occupation by completing a traineeship in Retail Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate IV in Retail Management (entry via Certificate III in Retail)

#### Additional Information

The Victorian Authorised Newsagents Association offers a training course conducted by industry participants for newsagents and prospective newsagents.

Newsagents that also act as lotteries outlets may be required to complete additional training developed by the relevant lotteries commission.

Prospective newsagents must undergo a financial, character and skills assessment by publishing companies.

#### Employment Opportunities

Newsagents are generally self-employed or work in partnerships. The start-up costs for newcomers are very high. There is a regular turnover in ownership due to the physical nature of the job and the long hours.

Some newsagents start work as sales assistants or early morning managers in a newsagency to gain experience.

Newsagents enter an agent/principal contract with publishers who tend to control the number of outlets for their products.

#### For Further Information

- Australian Chamber of Commerce and Industry  
☎ [www.acci.asn.au](http://www.acci.asn.au)
- Service Skills Australia ☎ [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Victorian Authorised Newsagents Association Ltd  
☎ (03) 9482 2911 ✉ [general@vana.com.au](mailto:general@vana.com.au)  
☎ [www.vana.com.au](http://www.vana.com.au)

#### Related Jobs

Cashier (p 107); Sales Assistant (p 358).

## Non-destructive Testing Technician

Non-destructive testing technicians examine and test the functionality and performance of an object or material in a way that will not affect its usefulness.

Non-destructive testing (NDT) technicians may perform the following tasks:

- test welds in the manufacture of pressure vessels and other steel fabrications
- test power generation and petrochemical plant components for corrosion and other defects
- test aircraft structures, engines and components for in-service and other defects
- examine and interpret inspection methods and test results for other personnel
- apply various methods in laboratory situations or at construction sites to investigate the properties of materials, objects and instruments.

NDT work is often done in the field, such as on pipelines or at construction sites. It is also used frequently in production plants and laboratories as part of a quality system.

**Note:** Persons engaged in X-ray work may be exposed to ionising radiation in the course of their duties. Each state and territory has legislation and codes of practice for how this work is to be carried out safely.

#### Personal Requirements

- enjoy technical and engineering activities
- attention to detail
- able to work independently or as part of a team
- good analytical skills and problem-solving ability
- enjoy mathematics and science
- good vision
- willing to follow instructions and procedures
- good communication skills.

#### Education and Training

To become a NDT technician you usually have to complete a diploma or advanced diploma in engineering technology. Entry to the courses below usually requires you to gain your Year 12/VCE with mathematics. Contact your chosen institution for full details as requirements may change.

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Engineering Technology - Mechanical/Manufacturing  
Advanced Diploma of Engineering Technology -  
Mechanical/Manufacturing

#### Additional Information

Certification of NDT personnel is often required. This is available through the Australian Institute for Non-Destructive Testing (AINDT).

#### Employment Opportunities

NDT personnel are employed by the inspection and testing service industry as well as in companies in the steel manufacturing, foundry, transport, aerospace, fuel and chemical industries.

Demand is closely related to activity in the petrochemical, energy, iron and steel industries.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ [careers@ausimm.com.au](mailto:careers@ausimm.com.au)  
☎ [www.ausimm.com.au](http://www.ausimm.com.au)
- The Australian Institute for Non-Destructive Testing (National Office) ☎ (03) 9328 8831 ✉ [info@aindt.com.au](mailto:info@aindt.com.au)  
☎ [www.aindt.com.au](http://www.aindt.com.au)

#### Related Jobs

Engineering Tradesperson - Fabrication (p 164); Metallurgical Technician (p 271); Quality Assurance Inspector (p 342).

## Nuclear Medicine Technologist

Nuclear medicine technologists use radioactive materials to diagnose physiological changes and treat diseases.

Nuclear medicine technologists may perform the following tasks:

- maintain and operate equipment, such as gamma cameras and computing systems, to acquire images, and to process and analyse patient data
- prepare and administer radiopharmaceuticals as tracers to demonstrate the function of organs in the body
- explain procedures to patients and enquire about previous diagnostic studies and medication, making sure they receive the correct preparation for the procedure



- check the patient's medical status and make sure that the patient's comfort, privacy and safety needs during the procedure are met
- give findings of procedures to medical practitioners
- provide treatment for cancer patients
- perform laboratory procedures including blood and specimen collection and quality control testing
- make sure that there is safe handling, storage and disposal of radioactive materials
- perform routine quality control and testing procedures of instrumentation, radiopharmaceuticals, data, images and computing systems
- initiate and participate in research programs and in the development of new techniques
- supervise students.

With experience and sometimes further training, nuclear medicine technologists may specialise in computer programming, bone mineral densitometry, or scanning techniques such as positron emission tomography (PET) and ultrasound.

Nuclear medicine technologists work as part of a team with other health professionals and medical staff.

#### Personal Requirements

- interest and ability in science
- able to work accurately
- responsible and patient nature
- sympathetic and understanding approach
- able to work independently or as part of a team.

#### Education and Training

To become a nuclear medicine technologist you usually have to study science at university specialising in nuclear medicine technology. To get into the course below you usually need to gain your VCE.

Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, biology, physics and mathematics are normally required. Contact the university for more information as requirements may change.

#### Degree Courses

*RMIT University - Bundoora Campus:*

Bachelor of Applied Science (Medical Radiations), specialising in nuclear medicine, 3 years full time

#### Additional Information

Students must obtain a first aid certificate and a National police clearance before undertaking professional placement. They may also need to obtain vaccination clearances required by state and territory health services.

Graduates are required to complete an internship year with a hospital that has an approved accredited department of nuclear medicine before being eligible for accreditation with the Australian and New Zealand Society of Nuclear Medicine.

#### Employment Opportunities

Entry to internship positions may be competitive. Employment is concentrated in larger centres due to the specialist nature of this branch of medicine. Although nuclear medicine technologists usually work in city-based hospitals, employment opportunities are increasing at private facilities.

#### For Further Information

- Australian and New Zealand Society of Nuclear Medicine (Federal Office) ☎ (03) 9756 0128 ✉ [anzsnm@21century.com.au](mailto:anzsnm@21century.com.au) 🌐 [www.anzsnm.org.au](http://www.anzsnm.org.au)
- Health Services Union of Australia (National Office) ☎ (03) 9341 3328 ✉ [hsu@hsu.net.au](mailto:hsu@hsu.net.au) 🌐 [www.hsu.net.au](http://www.hsu.net.au)

- Medical Radiation Practitioners Board of Victoria ☎ 1300 661 487 or (03) 9286 1888 ✉ [registrar@mrpb.vic.gov.au](mailto:registrar@mrpb.vic.gov.au) 🌐 [www.mrpb.vic.gov.au](http://www.mrpb.vic.gov.au)

#### Related Jobs

Cardiac Technologist (p 103); Medical Imaging Technologist (p 267); Radiation Therapist (p 343).

## Nurse - Enrolled

Also known as Enrolled Nurse (Division 2) and Nurse - Division 2.

Enrolled nurses, under the direction and supervision of a registered nurse, assist in the provision of acute, preventative, curative and rehabilitative nursing care in hospitals, aged-care facilities, the community and other health care settings.

Enrolled nurses may perform the following tasks:

- assist with initial and ongoing health assessments and maintenance of patients
- observe, measure and record patients' condition, for example, their temperature, pulse, respiration and blood pressure and, when necessary, blood sugar levels
- report changes in patients' condition
- attend to patients' hygiene and comfort needs by assisting with bathing, showering, dressing and bed-making
- assist patients with meals when required
- assist patients in rehabilitation exercises and programs
- assist in the care of wounds
- assist in emergency situations
- assist in providing education on health and lifestyle issues
- maintain a safe environment and assist in prevention of injuries.

Enrolled nurses may be required to work shifts involving nights, weekends and public holidays.

#### Personal Requirements

- good communication skills
- tolerance, patience and tact in dealing with people of different backgrounds, ages and cultures
- able to follow instructions precisely
- able to work as part of a team
- mentally and physically fit
- able to make decisions.

#### Education and Training

To become an enrolled nurse you usually have to complete a certificate IV or diploma in nursing. Entry to the certificate course below usually requires Year 10 and a first aid certificate. Entry to the diploma courses usually requires year 12 and a written test or interview. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate IV in Nursing (Enrolled/Division 2 Nursing)

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Nursing (Enrolled/Division 2 Nursing)

#### Additional Information

Before undertaking the clinical placements as required by courses, students will need to obtain the relevant police clearances, immunisations and working with children checks.

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including nurses. Boards in each State and Territory assist the Nursing and Midwifery Board of Australia by implementing these national standards and



policies. For full details, see the Nursing and Midwifery Board of Australia's website.

Opportunities exist for enrolled nurses to build on their skills and training in specific nursing areas. Courses are conducted according to local needs and include acute care, child and family health, community nursing, rehabilitation nursing, wound management, perioperative nursing and disability nursing. Enrolled nurses may be entitled to special entrance conditions when applying to undergraduate registered nurse courses.

#### Employment Opportunities

Enrolled nurses may be employed in acute, general, mental health hospitals, residential aged care facilities, hostels, extended care facilities and occasionally in community service settings.

#### For Further Information

- Nursing and Midwifery Board of Australia ☎ 1300 419 495  
🌐 [www.nursingmidwiferyboard.gov.au](http://www.nursingmidwiferyboard.gov.au)

#### Related Jobs

Anaesthetic Technician (p 65); Dental Assistant (p 142); Health Promotion Officer (p 210); Midwife (p 274); Nurse - Registered (p 296); Operating Theatre Technician (p 301); Paramedic (p 308); Personal Care Worker (p 312); Ward Assistant (p 432).

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## Nurse - Registered

Also known as Nurse - Division 1.

Registered nurses assess, plan, provide and evaluate preventative, curative and rehabilitative care for patients, clients and residents in a wide variety of settings.

Registered nurses may perform the following tasks:

- provide physical and technical nursing care and support for patients
- make sure patients receive treatment prescribed by doctors and other health professionals
- provide emotional and psychological support and information to patients and their families
- supervise, or carry out, nursing care of patients
- observe, monitor, assess, report and document patients' conditions and responses to treatment
- give medicines in accordance with sound working knowledge of legislation and pharmacology
- monitor and adjust medical equipment used in patient care and treatment, which can be highly technical and complex
- prepare patients for operations or provide post-operative care such as wound care and nutritional management
- assist in the rehabilitation of patients
- assist with patients' discharge planning
- provide first aid, assist in routine medical examinations, give advice on health matters and maintain sickness and accident records (where employed by large industrial or commercial organisations)
- answer questions and provide information to patients and families about health promotion, treatment and care
- contribute to the clinical training of nursing and midwifery students
- supervise enrolled nurses and other hospital staff.

In hospitals, nurses usually work according to a rotating seven-day roster which includes morning, afternoon and night shifts, weekends and public holidays. In other areas, the hours depend on the service.

Areas of specialist nursing practice include mental health nursing, aged care, cancer/oncology nursing, critical care, peri-operative,

community health, rural and remote area nursing, policy, research, management, education and workplace health and safety.

#### Specialisations

**Clinical Nurse Specialist** - is a registered nurse who has demonstrated competency in advanced practice or has developed competency in an area of specialisation.

**Community Health Nurse** - works in the wider community, providing nursing care, health counselling, health forums and group programs to individuals, families and groups. They may develop and facilitate community development programs with a health promotion focus.

**Mental Health Nurse** - provides nursing care to patients with mental and emotional problems who are undergoing treatment and support in hospitals, clinics, community settings or private homes.

**Nurse Educator** - assists in the design, implementation and assessment of education programs, the delivery of education and staff development programs and manages educational resources.

**Nurse Manager** - is responsible for the effective management of staffing and financial resources enabling the provision of safe, cost effective nursing care within a specified field or across an entire hospital or health service.

**Nurse Practitioner** - has highly developed skills and knowledge in a specialty field, for example wound care, sexual health or aged care. They work independently in their area of specialty and can prescribe medications and tests.

**Nurse Researcher** - conducts research into nursing and health issues.

**Nursing Unit Manager** - is responsible for the coordination and delivery of care in a specific ward or department or in community settings. They work in collaboration with clinical nurses to give direct nursing care to patients with complex care needs, facilitate staff development and undertake research.

**Practice Nurse** - is employed by general practitioners to conduct general treatments. They may also work in chronic disease management, health promotion and perform other general practice and administrative duties.

#### Personal Requirements

- good communication skills
- able to assume responsibility and a leadership role
- able to take the initiative in emergencies
- tolerance, patience and tact in dealing with people from a wide range of backgrounds and cultures
- able to work both independently and as part of a team
- mentally and physically fit.

#### Education and Training

To become a registered nurse you usually have to study nursing at university. To get into the courses below you will need to gain your VCE. Applicants may also be required to hold a current Senior First Aid Certificate. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Bachelor degrees in nursing are widely available at most universities in Victoria. Check institution handbooks for full details.

#### Additional Information

Before undertaking the clinical placements as required by courses, students will need to obtain the relevant police clearances, immunisations and working with children checks.



In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including nurses. Boards in each state and territory assist the Nursing and Midwifery Board of Australia by implementing these national standards and policies. For full details, see the Nursing and Midwifery Board of Australia's website.

It is a legal requirement for graduates to be registered with the Nursing and Midwifery Board of Australia before being able to practice as a nurse in any state or territory in Australia.

Following registration, there are courses available in a range of clinical specialities including medical-surgical nursing, mental health nursing, paediatric nursing, emergency, critical care, palliative care, occupational health and community nursing. There are also nursing postgraduate courses in management and education.

Registration as a nurse permits a person to work as a registered nurse in any relevant area of employment, except midwifery, which is restricted to registered midwives only. To become a midwife you must either complete further postgraduate study, or a Bachelor of Midwifery. See the separate entry for Midwife for more information.

#### Employment Opportunities

Registered nurses may work in public and private hospitals, community and home-based services including doctors' surgeries, community health centres and development programs, youth and women's shelters, school and university health clinics and in remote and rural areas.

Nurses are also employed in the Defence Forces, international aid agencies and the Royal Flying Doctor Service. An increasing number of nurses are becoming self-employed as consultants or educators, or working through nursing agencies.

The increasing variety of specialist services and advances in medical technology has increased demand for nurses with training and experience in specialist areas.

#### For Further Information

- Nursing and Midwifery Board of Australia ☎ 1300 419 495
- 🌐 [www.nursingmidwiferyboard.gov.au](http://www.nursingmidwiferyboard.gov.au)

#### Related Jobs

Anaesthetic Technician (p 65); Counsellor (p 133); Health Promotion Officer (p 210); Midwife (p 274); Nurse - Enrolled (p 295); Occupational Therapist (p 299); Paramedic (p 308); Physiotherapist (p 319); Rehabilitation Counsellor (p 352).

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## Nutritionist

Nutritionists study and provide advice on dietary habits to encourage the achievement of a healthy lifestyle.

Nutritionists may perform the following tasks:

- consult with individuals and groups, including sportspeople, on their dietary habits and assess potential nutritional deficiencies
- prescribe diet plans based upon the assessment of medical and nutritional needs
- liaise with other health professionals on nutrition, including controlled diets for people with special needs
- monitor clients' progress and quality of food to provide ongoing nutritional care
- collect, organise and analyse data relating to the health and nutrition behaviours of specific groups and the population as a whole
- plan, conduct and evaluate nutrition intervention programs and compile educational material
- provide counselling and consulting services to hospitals, nursing homes and other therapeutic institutions.

Nutritionists have a high level of contact with the public.

### Personal Requirements

- enjoy food and food preparation
- interested in health and wellbeing
- good communication skills
- able to work as part of a team
- aptitude for science and research.

### Education and Training

To become a nutritionist you usually have to complete a bachelor degree in science, applied science or health science, majoring in nutrition. To get into these courses you usually need to gain your VCE. Applicants may be required to attend an interview. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees with majors in nutrition. Contact your preferred institution for full details.

### Additional Information

General membership of Nutrition Australia is available to anyone interested in this area. Further information is available on their website.

### Employment Opportunities

Nutritionists work in a diverse range of food and health areas including patient care, public nutrition and health education, private practice and consultancy, food industries, health promotion and marketing, teaching and research. Some nutritionists work on a part-time basis.

Opportunities for nutritionists depend upon the recognition of nutrition by the community as a health strategy in preventing and treating diet-related diseases, such as heart disease, cancer and diabetes. The level of public and professional awareness and acceptance of nutrition services have an affect on the demand for nutritionists.

### For Further Information

- The Australian Institute of Food Science and Technology Inc (National Office) ☎ (02) 8399 3996 or 1800 816 148 (FREECALL) ✉ aifst@aifst.com.au 🌐 www.aifst.asn.au
- Nutrition Australia (VIC) ☎ (03) 9650 5165 ✉ vic@nutritionaustralia.org 🌐 www.nutritionaustralia.org

### Related Jobs

Consumer Scientist (p 128); Dietary Aide (p 146); Dietitian (p 147); Environmental Health Officer (p 168); Food Technologist (p 189); Health Promotion Officer (p 210); Home Economist (p 213); Natural Therapist (p 288); Sports Scientist (p 380); Weight Loss Counsellor (p 436).



## Occupational Health and Safety Officer

Also known as Occupational Health and Safety Coordinator.

Occupational health and safety officers coordinate health and safety systems in an organisation. They identify hazards and assess risks to health and safety, put appropriate safety controls in place, and provide advice on accident prevention and occupational health to management and employees.

Occupational health and safety officers may perform the following tasks:

- promote occupational health and safety within the organisation and develop safer and healthier ways of working
- inspect machinery and equipment, such as lifting devices, machine shields and scaffolding, to make sure they meet safety regulations
- work with engineers and other professionals to ensure the safety of work sites
- make sure that personal protective equipment, such as dust masks, safety glasses, footwear and safety helmets, is being used in workplaces according to regulations
- make sure that dangerous materials are correctly stored
- identify and test work areas for potential accident and health hazards, such as toxic fumes and explosive gas-air mixtures, and implement appropriate control measures
- make sure that the organisation is aware of, and complies with, all legislation in relation to the use of its plant, equipment and substances, as well as in all workplace activities
- help supervise the investigation of accidents and unsafe working conditions, study possible causes and recommend remedial action
- conduct training sessions for management, supervisors and workers on health and safety practices and legislation
- assist with the rehabilitation of workers after accidents or injuries and make sure they experience a satisfactory return to work
- coordinate emergency procedures, mine rescues, fire fighting and first aid crews
- communicate frequently with management to report on the status of the occupational health and safety program
- develop occupational health and safety systems, including policies, procedures and manuals.

### Specialisations

**Ergonomist** - investigates the design and use of equipment and systems and examines their suitability for human operators. They may also advise on psychological factors affecting work performance.

**Occupational/Industrial Hygienist** - identifies and investigates problems of occupational/industrial hygiene (chemical and biological hazards) in the workplace, and alerts managers and professionals to possible health risks. They use scientific equipment to measure and control hazardous substances.



### Personal Requirements

- tact and diplomacy
- able to work independently or as part of a team
- good communication skills
- good interpersonal skills
- integrity and honesty.

### Education and Training

To become an occupational health and safety officer you usually have to complete a certificate or diploma in occupational health and safety. However, entry to this occupation may be improved if you have a degree in occupational health and safety or health science.

Entry to the certificate course below usually requires completion of a Certificate III in Occupational Health and Safety. Entry to the diploma and advanced diploma courses usually requires Year 12. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physical education, physics and mathematics normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

### Certificate Courses

**TAFE Victoria - various locations:**

Certificate IV in Occupational Health and Safety

### Diploma Courses

**TAFE Victoria - various locations:**

Diploma of Occupational Health and Safety (entry via Certificate IV in Occupational Health and Safety)

Advanced Diploma of Occupational Health and Safety (entry via Diploma of Occupational Health and Safety)

### Degree Courses

**Deakin University - Burwood, Geelong and Warrnambool Campuses:**

Bachelor of Health Sciences, 3 years full time or equivalent

**La Trobe University - Bendigo and Bundoora Campuses:**

Bachelor of Health Sciences, 3 years full time or equivalent

**Monash University - Caulfield Campus:**

Bachelor of Health Science, 3 years full time or equivalent

**Swinburne University of Technology - Hawthorn Campus:**

Bachelor of Health Science (Public and Environmental Health), majoring in occupational health and safety, 3 years full time or equivalent

### Additional Information

Qualifications in first aid are also helpful and, in some cases, essential.

### Employment Opportunities

Traditionally, occupational health and safety officers have been employed in the manufacturing, construction, health and minerals industries. Positions are now becoming available in management consultancies and large commercial institutions, such as banks, hospitals, insurance companies, government organisations and service-based organisations.

In large workplaces, personnel departments may employ a number of occupational health and safety officers. In small organisations, the personnel officer often combines the duties of occupational health and safety officer with other duties. Ergonomists may be employed by large organisations but can also work in research or as private consultants.

### For Further Information

- Human Factors and Ergonomics Society of Australia Inc

☎ (02) 9680 9026 ✉ [secretariat@ergonomics.org.au](mailto:secretariat@ergonomics.org.au)

🌐 [www.ergonomics.org.au](http://www.ergonomics.org.au)

- IFAP ☎ (08) 9333 9999 ✉ [ifap@ifap.asn.au](mailto:ifap@ifap.asn.au) 🌐 [www.ifap.asn.au](http://www.ifap.asn.au)

- National Safety Council of Australia (VIC) ☎ (03) 8562 1555 or 1800 655 510 (FREECALL) ✉ [melbourne@nsca.org.au](mailto:melbourne@nsca.org.au)

🌐 [www.nsca.org.au](http://www.nsca.org.au)

### Related Jobs

Environmental Health Officer (p 168); Human Resources Officer (p 219); Industrial Relations Officer (p 226); Management Consultant (p 253); Public Servant - Australian Public Service (p 340); Rehabilitation Counsellor (p 352); Trade Union Official (p 411); Training Officer (p 414).

## Occupational Therapist

Occupational therapists assess and treat people who, because of illness, injury or circumstance, are limited in their ability to undertake the activities of everyday life.

They assist people to regain lost functions, develop their abilities and social skills, and maintain and promote independence in their everyday lives to enhance health and wellbeing.

Occupational therapists may perform the following tasks:

- conduct tests to assess functional, emotional, psychological, developmental and physical capabilities
- plan and direct specific therapeutic programs for individuals using vocational (jobs or careers), recreational, remedial, social and educational activities
- select and design a variety of activities that improve an affected movement or function and help individuals to regain personal care skills, such as eating and dressing
- assist people to gain, or regain, skills in social, leisure and work environments through graded individual or group therapy and activity programs
- monitor the progress of individuals and assist with the coordination of an effective health team
- assist children with disabilities to integrate into education programs in schools
- assess the ability of injured workers to return to their usual employment or to perform alternative duties
- design and modify the everyday environment of clients to allow for better access and independence
- advise on the use of specialised equipment, such as home modifications, adapted kitchen utensils, wheelchairs and other assistive technologies, which help people within their environment
- assess the need for, develop and run health education programs
- act as consultants to industry and government organisations
- undertake research
- teach in academic institutions
- assist in policy development for health and other areas.

Occupational therapists may work in areas such as:

**Aged care:** providing programs and equipment for people with medical and social problems associated with ageing.

**Disabilities:** working with people who have an intellectual, physical or sensory disability through planned activity programs over long periods of time.

**General medicine:** working in hospitals or private practice to assess and treat individuals with physically disabling diseases or injuries.



**Occupational health:** assessing the safety of work environments and injured workers, providing rehabilitation and advice on adaptations to the workplace.

**Health promotion:** assisting people who want to achieve a balanced and healthy lifestyle.

**Paediatrics:** working in hospitals, private practices or schools to assess and treat children with disabilities, developmental delays or learning difficulties.

**Psychiatry:** assessing and treating individuals with mental illness and behavioural disorders through programs involving such things as stress management.

**Vocational rehabilitation:** assisting injured workers to return to work.

#### Personal Requirements

- patience, initiative, flexible attitude
- practical, innovative and observant
- able to solve problems
- good interpersonal and communication skills
- able to work independently or as part of a team.

#### Education and Training

To become an occupational therapist you usually have to study occupational therapy at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physical education, physics and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

*Charles Sturt University - Albury-Wodonga Campus:*

Bachelor of Occupational Therapy, 4 years full time

*Deakin University - Geelong Waterfront Campus:*

Bachelor of Occupational Therapy, 4 years full time

*La Trobe University - various locations:*

Bachelor of Health Science/Master of Occupational Therapy, 4 years full time

*La Trobe University - Bundoora Campus:*

Bachelor of Psychological Science/Master of Occupational Therapy, 5 years full time

*Monash University - Peninsula Campus:*

Bachelor of Occupational Therapy, 4 years full time

#### Additional Information

Students will be required to obtain a Senior First Aid certificate, a National police record check, and evidence of immunisation status, prior to commencing clinical placements. They may also be required to obtain a Working with Children Check.

In order to practise as an occupational therapist graduates may be required to register with the Occupational Therapists Registration Board of the state or territory in which they intend to work.

#### Employment Opportunities

Occupational therapists work in public and private health care organisations. These may include general and children's hospitals, nursing homes, rehabilitation centres, day care centres, community health centres, municipal councils, primary and secondary schools, prisons, centres for people with various disabilities, independent living centres and other organisations. Occupational therapists may also work in private practice as clinicians, consultants or as injury management advisers.

Employment opportunities are influenced mainly by the ageing of the population, level of government funding and government policy initiatives. For example, recent trends toward integrating people with disabilities into the community rather than placing them in institutions has increased demand for occupational therapists.

#### For Further Information

- OT Australia (National) ☎ (03) 9415 2900 ✉ [info@ausot.com.au](mailto:info@ausot.com.au)  
🌐 [www.ausot.com.au](http://www.ausot.com.au)
- CRS Australia ☎ 1800 277 277 🌐 [www.crsaustalia.gov.au](http://www.crsaustalia.gov.au)

#### Related Jobs

Disability Services Instructor (p 148); Diversional Therapist (p 150); Midwife (p 274); Music Therapist (p 284); Nurse - Registered (p 296); Orientation and Mobility Instructor (p 304); Physiotherapist (p 319); Rehabilitation Counsellor (p 352); Special Care Worker (p 376); Teacher - Special Education (p 398).

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## Office Administrator

Also known as Office Manager.

Office administrators undertake a range of functions to make sure the administration activities within an organisation run smoothly.

They may be responsible for the management of human resources, budgets, accommodation and property facilities and records. These functions can be performed at various levels ranging from junior through to upper management.

Office administrators may perform the following tasks:

- supervise and coordinate activities of staff
- interview job applicants
- conduct orientation programs for new employees
- administer salaries and work out leave entitlements
- be involved in staff training and development, the preparation of job descriptions, staff assessments and promotions
- prepare annual estimates of expenditure, maintain budgetary and inventory controls and make recommendations to management
- maintain management information systems (manual or computerised)
- locate suitable business premises and negotiate reasonable leasing agreements
- provide and maintain business premises and other facilities including plant machinery and equipment
- review and answer correspondence
- provide secretarial or executive services for committees.

Office administrators may work for one person or a group of people. In some areas of employment, long hours of work and/or travel may be required.

#### Personal Requirements

- able to supervise
- good oral and written communication skills
- aptitude for working with computers
- well organised.

#### Education and Training

You can work as an office administrator without formal qualifications. However, you would usually need to gain extensive administrative experience at a lower level before moving into the role of office administrator. Entry to this occupation may be improved if you have qualifications in business or administration.

Costs, duration and entry requirements may vary between courses. See the online entry for Office Administrator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.



You can also become an office administrator through a traineeship in Business Administration. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Business Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Office administrators are employed across all industries and in all types of organisations.

Experienced office administrators may work freelance or on temporary placements.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Australian Institute of Office Professionals (National Office)  
☎ (03) 9388 9985 ✉ [nationaladmin@aio.com.au](mailto:nationaladmin@aio.com.au)  
☎ [www.aio.com.au](http://www.aio.com.au)
- Australian Services Union (VIC) ☎ (03) 9342 6700  
✉ [services@asuVIC.com](mailto:services@asuVIC.com) ☎ [www.asuVIC.asn.au](http://www.asuVIC.asn.au)

#### Related Jobs

Administrative Assistant (p 54); Company Secretary (p 123); Court Officer (p 134); Hospital Administrator (p 217); Logistics Clerk (p 251); Public Servant - Australian Public Service (p 340); Public Servant - State Government (p 341); Receptionist (p 346); Secretary (p 363); Stock and Station Agent (p 384); Transport Administrator (p 416); Transport Clerk (p 417).

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## Offset Printer

Offset printers set up and operate small offset printing presses used in instant print shops or for in-house printing.

Offset printers may perform the following tasks:

- prepare plates, blankets and impression cylinders on small offset lithographic printing presses
- load paper into feeding mechanisms
- monitor machine operations and quality of printing
- undertake maintenance, repair and cleaning of machines
- compile, trim and staple documents
- keep production records.

#### Personal Requirements

- enjoy technical activities
- good eyesight (may be corrected) and normal colour vision
- good hand-eye coordination
- able to carry out detailed work
- aptitude for mechanical work
- able to work as part of a team.

#### Education and Training

To become an offset printer you usually have to complete a traineeship in Printing and Graphic Arts (Instant Print). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Offset printers are employed by small printing firms and shops. Technological development has been rapid in the printing industry with the widespread application of computerised systems. Demand is greatest for people familiar with the new techniques and technology. Job opportunities are mostly concentrated in NSW, Queensland and Victoria.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ [info@printnet.com.au](mailto:info@printnet.com.au) ☎ [www.printnet.com.au](http://www.printnet.com.au)

#### Related Jobs

Binder and Finisher (p 87); Graphic Prepress Tradesperson (p 207).

## Operating Theatre Technician

Also known as Operating Theatre Orderly, Operating Theatre Assistant and Operating Theatre Support Officer.

Operating theatre technicians prepare and maintain operating theatres and equipment, and assist surgical and anaesthetic teams during operations.

Operating theatre technicians may perform the following tasks:

- assist in preparing operating rooms for surgery
- set up, check, connect and adjust surgical equipment
- provide technical assistance to surgeons, surgical nurses and anaesthetists
- clean and restock the operating room, placing equipment and supplies and arranging instruments and equipment according to instruction
- position patients for surgical and/or anaesthetic treatments
- assist patients after the operation by taking them to the recovery room.

#### Personal Requirements

- good communication and people skills
- attention to detail
- able to work under pressure
- able to work accurately and with minimal supervision
- organised and methodical
- good general health and fitness.

#### Education and Training

To become an operating theatre technician you usually have to complete a certificate in health services assistance.

Entry to the certificate course below usually requires Year 10. Contact the institution for full details.

You can also become an operating theatre technician through an apprenticeship in Health Services Assistance. Entry requirements may vary, but employers generally require Year 10. For more details



on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate III in Health Services Assistance

#### Additional Information

Once you are employed, you may be able to develop, or have recognised, additional skills under the Health Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Operating theatre technicians work in hospital or health care settings. Some work in day surgeries, endoscopy clinics and eye surgeries.

#### For Further Information

- Community Services and Health Industry Skills Council Ltd  
🌐 [www.careersthatmatter.com.au](http://www.careersthatmatter.com.au)
- Health Skills Australia 🌐 [www.healthskills.com.au](http://www.healthskills.com.au)
- Victorian Health Department 🌐 [www.health.vic.gov.au](http://www.health.vic.gov.au)

#### Related Jobs

Nurse - Enrolled (p 295); Ward Assistant (p 432).

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## Optical Dispenser

Optical dispensers interpret optical prescriptions, and fit and service optical appliances such as spectacle frames and lenses.

Optical dispensers may perform the following tasks:

- discuss the client's eyewear needs
- choose the appropriate frame to satisfy the client's comfort, appearance and prescription requirements
- discuss and recommend types of lenses and/or lens enhancements
- make sure that lenses conform to the prescription of the ophthalmologist (eye specialist) or optometrist
- shape lenses and fit lenses to frames, making sure that the lenses meet quality standards
- make sure that the new eyewear fits correctly and comfortably
- carry out minor repairs to damaged frames.

An optical dispenser works as part of the eye care team, with optometrists or ophthalmologists who issue the optical prescription, and the optical mechanic who makes the visual aid or optical appliance.

#### Personal Requirements

- good communication skills
- sales ability
- technical ability
- good hand-eye coordination
- an aptitude for mathematics
- enjoy helping people
- patience and attention to detail.

#### Education and Training

To become an optical dispenser you usually have to complete a Certificate IV in Optical Dispensing. Entry to the course below usually relevant employment. In addition, you must complete 800 hours of practical work under supervision. Contact the institution for full details.

You can also become an optical dispenser through a traineeship in Optical Dispensing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian

Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You may be able to study through distance education. See the Learning Pathways section for more information.

#### Certificate Courses

*RMIT University (TAFE Division) - City Campus:*

Certificate IV in Optical Dispensing

#### Employment Opportunities

Optical dispensers are employed by optical dispensing firms or optometrists. They may operate their own dispensing businesses. They operate throughout metropolitan areas and larger country towns.

Shifts in fashion tend to influence popular styles of glasses, and therefore also impact upon the work of, and demand for, optical dispensers. There is also demand for specialised glasses, such as no-line bifocals, half glasses for reading, glasses made of thinner and lighter lens materials, sunglasses and glasses with other enhancements such as cosmetic tints and reflection-free coatings.

#### For Further Information

- Australasian Dispensing Opticians Association ☎ (02) 9412 3033  
✉ [tedbutler@stewartbrown.com.au](mailto:tedbutler@stewartbrown.com.au) 🌐 [www.adoa.com.au](http://www.adoa.com.au)
- Optometrists Association Australia (National) ☎ (03) 9668 8500  
✉ [oaanat@optometrists.asn.au](mailto:oaanat@optometrists.asn.au) 🌐 [www.optometrists.asn.au](http://www.optometrists.asn.au)

#### Related Jobs

Medical Practitioner (p 268); Optical Mechanic (p 302); Optometrist (p 303).

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## Optical Mechanic

Also known as Optical Technician.

Optical mechanics make precision optical parts, grind, polish and surface prescription lenses and contact lenses, and fit lenses to spectacle frames.

Optical mechanics may perform the following tasks:

- read and interpret prescriptions from eye specialists
- locate and mark optical centres and axes on lens blanks and make calculations to grind lenses to specifications
- grind and polish the surface of the lens by setting grinding and polishing machines
- test polished lenses for accuracy
- apply protective coatings and non-reflective material to lenses and apply heat and chemical treatment to glass lenses to harden them if required
- shape and fit lenses to spectacle frames
- repair damaged and broken spectacles
- cut and polish contact lenses to prescription requirements.

With further training, optical mechanics may specialise as optical dispensers who measure and fit clients with spectacles. See the separate profile for Optical Dispenser. Highly skilled and experienced optical mechanics make, repair and service binoculars, telescopes and other scientific optical equipment.

#### Personal Requirements

- good eyesight (or correctable by glasses or contact lenses)
- good hand-eye coordination
- patience and accuracy
- an aptitude for mathematics and physics.



## Education and Training

To become an optical mechanic you usually have to complete a certificate in optical technology. Entry to the certificate course below usually requires Year 10. Contact the institution for full details as requirements may change.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become an optical mechanic through a traineeship in optical technology. Entry requirements may vary, but employers usually require Year 10. Contact the institution you are interested in for full details as requirements may change. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**Gordon Institute of TAFE - East Geelong Campus:**

Certificate IV in Optical Technology

### Employment Opportunities

Most optical mechanics work for optical dispensers and for optical laboratories, which do grinding and fitting work. Some also work with optometrists in their dispensing workshop. Nationwide, a few government organisations, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), employ optical mechanics.

### For Further Information

- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Optometrists Association Australia (National) ☎ (03) 9668 8500  
✉ [aaanat@optometrists.asn.au](mailto:aaanat@optometrists.asn.au) ☎ [www.optometrists.asn.au](http://www.optometrists.asn.au)

### Related Jobs

Optical Dispenser (p 302); Optometrist (p 303).

## Optometrist

Optometrists perform eye examinations to determine the presence of vision problems, and other eye conditions and diseases. They treat or manage these problems by prescribing glasses, contact lenses, optical aids, therapy or eye drops.

Optometrists may perform the following tasks:

- work out the nature and extent of vision problems and abnormalities by examining patients' eyes using specialised instruments, techniques and tests
- correct vision defects by prescribing and dispensing glasses or contact lenses, special optical aids or vision therapy
- examine patients for signs of eye and systemic conditions, including glaucoma, diabetes, high blood pressure and multiple sclerosis, and work with medical practitioners to co-manage patients when required
- manage some eye conditions by prescribing therapeutic drugs
- monitor patients' vision and ocular health with the use of digital photography and computerised vision tests
- conduct eye screenings for the purposes of determining occupational fitness, or fitness to drive
- undertake managerial, retail and administrative tasks.

Most optometrists are in daily contact with members of the public on a one-to-one basis.

### Personal Requirements

- patient and caring manner
- able to carry out accurate and precise work
- good communication skills
- enjoy helping people.

## Education and Training

To become an optometrist you usually have to study optometry at university. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics and chemistry are normally required.

Contact the university for more information as requirements may change.

### Degree Courses

**University of Melbourne - Parkville Campus:**

Bachelor of Biomedicine/Doctor of Optometry, 7 years full time

### Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including optometry. Boards in each State and Territory implement these national standards and policies. For full details, see the Optometry Board of Australia's website.

It is a legal requirement for graduates to be registered with the Optometry Board of Australia before practising as an optometrist in any state or territory in Australia.

Optometrists may also be required to obtain a Working with Children Check once registered. Contact the Optometrists Association Australia for further information.

### Employment Opportunities

Most graduates enter private practice on completion of their course. Some graduates choose to embark on non-clinical careers that make use of their skills as visual scientists. Most non-clinical positions are in universities and research organisations or with companies involved in the manufacture of optical instruments and lenses.

As optometry becomes more diversified, there are increasing opportunities for specialisation in areas such as sports vision, children's vision and industrial vision practices.

### For Further Information

- Optometrists Association Australia (National) ☎ (03) 9668 8500  
✉ [aaanat@optometrists.asn.au](mailto:aaanat@optometrists.asn.au) ☎ [www.optometrists.asn.au](http://www.optometrists.asn.au)
- Optometry Board of Australia ☎ 1300 419 495  
☎ [www.optometryboard.gov.au](http://www.optometryboard.gov.au)

### Related Jobs

Optical Dispenser (p 302); Optical Mechanic (p 302); Orthoptist (p 305).

## Optometry at Melbourne.

[science.unimelb.edu.au/](http://science.unimelb.edu.au/)



THE UNIVERSITY OF  
MELBOURNE  
CRICOS: 00116K

## Oral Health Therapist

Also known as Dental Therapist.

Oral health therapists diagnose dental decay and gum diseases, provide routine oral health care for children and adults under the general supervision of dentists, and also help to promote preventive dental practices among school children and the broader community.

Oral health therapists may perform the following tasks:

- educate and motivate children to maintain good oral health



- promote oral health in the community by providing education and information on oral health, and working with other health services and groups such as parents' groups, play groups and parents and citizens' associations
- work to improve oral health within childcare and elderly residential care settings and other health support settings, especially those that cater to people who do not have good access to dental care
- provide routine dental treatment for children, adolescents and young adults including dental examinations and diagnosis, cleaning, scaling and polishing teeth, filling cavities and extracting deciduous (baby) teeth under local anaesthetic
- treat people of all ages for gum conditions, take X-rays of teeth and jaws, apply sealants and fluoride therapy, and take impressions for mouthguard construction
- bring more complex dental problems to the attention of dentists
- advise managers of school canteens about healthy food
- liaise with other health care providers to support oral health as part of general health.

Oral health therapists who work in the public sector may be required to work anywhere in their state or territory, although individual preferences and applications for specific positions are taken into account.

#### Personal Requirements

- interested in health and wellbeing
- good hand-eye coordination
- able to do precise and detailed work
- good communication skills
- able to establish rapport with both children and adults
- able to work as part of a team.

#### Education and Training

To become an oral health therapist you have to study oral health at university. To get into the degree courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry and physical education are normally required. Entry is highly competitive and there is a strict quota. You may need to sit selection tests and attend an interview. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *La Trobe University - Bendigo Campus:*

Bachelor of Oral Health Science, majoring in dental therapy, 2.5 years full time

##### *University of Melbourne - Parkville Campus:*

Bachelor of Oral Health, majoring in dental therapy, 3 years full time

#### Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including dental. State and Regional Boards assist the Dental Board of Australia by implementing these national standards and policies. For full details, see the Dental Board of Australia's website.

It is a legal requirement for graduates to be registered with the Dental Board of Australia before being able to practice as an oral health therapist in any state or territory in Australia.

#### Employment Opportunities

Oral health therapists may be employed by any clinic that provides dental services to the public, in both the private sector (general and specialist practices) and the public sector in school and community dental services, hospitals, and disability and residential care settings. Government dental services are the major employers of oral health therapists, although they may also own their own practices.

Opportunities for career progression include positions in research and teaching, and senior clinical and administrative positions coordinating health promotion activities in dental health services state- or territory-wide.

#### For Further Information

- Australian Dental Association (Federal Office) ☎ (02) 9906 4412  
🌐 [www.ada.org.au](http://www.ada.org.au)
- Australian Dental and Oral Health Therapists Association (National Office) ☎ 0431 771 129 (mobile call charges apply)  
✉ [adohta@adohta.net.au](mailto:adohta@adohta.net.au) 🌐 [www.adohta.net.au](http://www.adohta.net.au)
- Dental Board of Australia ☎ 1300 419 495  
🌐 [www.dentalboard.gov.au](http://www.dentalboard.gov.au)

#### Related Jobs

Dental Assistant (p 142); Dental Hygienist (p 143); Dental Technician (p 144); Dentist (p 145).

## Orientation and Mobility Instructor

Also known as Orientation and Mobility Teacher and Orientation and Mobility Specialist.

Orientation and mobility instructors teach vision-impaired people to move around the environment safely and with confidence. They work on a one-to-one basis.

Orientation and mobility instructors perform the following tasks:

- teach people who have vision loss to use their remaining eyesight and their other senses (sound, touch, smell and the sensation of body movement) to detect landmarks and reference points and work out where they are
- instruct in the use of a variety of mobility aids such as canes, which give information to users about the surface over which they are about to walk
- teach clients to use electronic travel devices together with the canes (these devices give off vibrating or audible signals when obstacles are ahead)
- work with parents of young children and infants who are blind or vision impaired to encourage the development of skills and concepts related to their bodies, their environment and the wider community
- consult with other professions, groups or individuals
- work as part of a team of specialists, which might include occupational therapists, diversional therapists, physiotherapists, optometrists, orthoptists, doctors or teachers, to provide a range of services for people who are blind or have low vision.

Instructors may work with clients in their homes or in training centres, hospitals, schools or places of employment.

#### Personal Requirements

- good physical health and vision
- a desire to work with people with disabilities
- observant, patient and reliable
- strong communication skills.

#### Education and Training

To become an orientation and mobility instructor you usually have to study health science at university, followed by a postgraduate degree in orientation and mobility. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, mathematics, physical education or physics are normally required. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree course.



### Degree Courses

*Deakin University - Burwood, Geelong and Warrnambool Campuses:*

Bachelor of Health Sciences, 3 years full time or equivalent

*La Trobe University - Bendigo and Bundoora Campuses:*

Bachelor of Health Sciences, 3 years full time or equivalent

*Monash University - Caulfield Campus:*

Bachelor of Health Science, 3 years full time or equivalent

### Additional Information

A current drivers licence is usually required.

### Employment Opportunities

Orientation and mobility instructors work for organisations such as guide dogs associations and other blindness agencies.

Employment opportunities may increase with the ageing population.

### For Further Information

- Vision Australia ☎ 1300 847 466 ✉ info@visionaustralia.org  
🌐 www.visionaustralia.org.au
- Guide Dogs Victoria ☎ (03) 9854 4444 or 1800 804 805  
(FREECALL) ✉ info@guidedogsvictoria.com.au  
🌐 www.guidedogsvictoria.com.au

### Related Jobs

Disability Services Instructor (p 148); Guide Dog Instructor (p 208); Occupational Therapist (p 299); Welfare Worker (p 436).

## Orthoptist

Orthoptists detect, diagnose and treat disorders of the eye, both in relation to impaired vision and eye movement.

Orthoptists may perform the following tasks:

- measure and assess visual acuity (ability to discriminate detail) and prescribe glasses where appropriate
- investigate, monitor and assist in treating eye disorders such as glaucoma, cataracts, diabetic eye disease and age-related macular degeneration
- measure and select intraocular (within the eye) lenses for cataract surgery
- detect and manage eye movement disorders, such as strabismus (turned eye) and amblyopia (lazy eye), and their sensory consequences
- conduct specialised diagnostic and imaging techniques (such as ultrasonography and topography) to determine the effects and progression of eye disease
- assess and provide management strategies for individuals with neurological disorders
- devise strategies for rehabilitating impaired vision and design therapy programs to maximise an individual's remaining vision
- provide reports on the existence of eye defects to various practitioners and therapists, and to relevant authorities, such as transport authorities
- provide educational information to patients, families and members of the community about eye conditions and their effects
- assist the community by providing vision screening tests and promoting preventative eye health care.

Orthoptists may specialise in:

- ophthalmic eye care, which involves treatment of general eye diseases such as glaucoma, cataracts, diabetic eye disease and age-related macular degeneration
- neuro-ophthamology, which involves the treatment of neurologically-based eye disorders caused by stroke and head injury

- eye movement disorders and paediatric eye care, involving the treatment of conditions such as strabismus, amblyopia and double vision
- vision rehabilitation, involving maximising residual sight in individuals with low vision
- education or research.

Orthoptists often work with ophthalmologists, medical practitioners and other allied health professionals.

### Personal Requirements

- interested in people's health needs
- enjoy health sciences
- good communication skills.

### Education and Training

To become an orthoptist you usually have to study orthoptic or ophthalmic science at university. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, biology, mathematics, physical education and physics are normally required. Contact the university for more information as requirements may change.

### Degree Courses

*La Trobe University - Bundoora Campus:*

Bachelor of Health Sciences and Master of Orthoptics, 4 years full time

### Additional Information

Students will be required to provide a National Police Security Check and a Working With Children Check, prior to commencing clinical placements. They may also need to meet vaccination and immunisation requirements and hold a first aid certificate.

Graduates may be eligible to become members of the Orthoptic Association of Australia and register with the Australian Orthoptic Board.

### Employment Opportunities

Orthoptists are employed in a wide range of settings including private practices, specialist eye clinics and public hospitals (including children's hospitals), community centres and low vision rehabilitation centres. Both part-time and full-time employment is available.

### For Further Information

- Health Services Union of Australia (National Office)  
☎ (03) 9341 3328 ✉ hsu@hsu.net.au 🌐 www.hsu.net.au
- Orthoptic Association of Australia (Federal Association)  
☎ (03) 9895 4463 ✉ office@orthoptics.org.au  
🌐 www.orthoptics.org.au

### Related Jobs

Optometrist (p 303).

## Osteopath

Osteopaths diagnose, treat and provide preventative advice on disorders of the musculoskeletal system of the body, using manual techniques to alleviate stresses and dysfunction to improve the body's function.

Osteopaths may perform the following tasks:

- diagnose patients' complaints using information from case histories, physical examinations, manual 'palpation' (the use of touch), observation of patients' body structure and mobility, and clinical aids (e.g. X-rays, CT scans and laboratory tests)



- treat patients using a variety of manual techniques such as soft tissue stretching, muscle relaxation, gentle mobilization or manipulation
- treat biomechanical complaints (e.g. backache, general joint problems, sports injuries, arthritis, stress and repetitive strain injuries), some breathing problems (e.g. asthma) and a wide range of general medical complaints (e.g. headache)
- treat children for the after-effects of birth trauma and childhood accidents
- devise exercise and nutritional programs.

Osteopaths work in combination with dietitians, dentists, medical practitioners, naturopaths and podiatrists, and may work from clinics or from their homes. They have a high level of contact with the public.

#### Personal Requirements

- an interest in health science and human anatomy
- good hand-eye coordination
- good communication skills
- interested in people and their health.

#### Education and Training

To become an osteopath you usually have to study science at university with a major in osteopathy, followed by a masters degree in osteopathy. To get into the bachelor courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, physics and mathematics are normally required. Entry can be highly competitive and applicants may be required to attend an interview. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree. The universities have different prerequisites and may have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *RMIT University - Bundoora Campus:*

Bachelor of Applied Science (Complementary Medicine - Osteopathy), 3 years full time

##### *Victoria University - City Flinders Campus:*

Bachelor of Science (Clinical Sciences), majoring in osteopathic science, 3 years full time

#### Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including osteopathy. Boards in each State and Territory implement these national standards and policies. For full details, see the Osteopathy Board of Australia's website .

It is a legal requirement for graduates to be registered with the Osteopathy Board of Australia before being able to practise as an osteopath in any state or territory in Australia.

You may also need to obtain a Working with Children Check.

#### Employment Opportunities

The majority of osteopaths are self-employed, but newly qualified osteopaths often work with an established clinic before starting their own practice. Job prospects depend upon the location you wish to practice in, and the level of community awareness and recognition of osteopaths as allied health workers.

#### For Further Information

- Australian Osteopathic Association (National Office)  
☎ 1800 467 836 (FREECALL) ✉ [aoa@osteopathic.com.au](mailto:aoa@osteopathic.com.au)  
🌐 [www.osteopathic.com.au](http://www.osteopathic.com.au)
- Osteopathy Board of Australia ☎ 1300 419 495  
🌐 [www.osteopathyboard.gov.au](http://www.osteopathyboard.gov.au)

#### Related Jobs

Acupuncturist (p 52); Chiropractor (p 114); Massage Therapist (p 258); Medical Practitioner (p 268); Physiotherapist (p 319); Podiatrist (p 325).

## P

### Painter and Decorator

Painters and decorators apply paint, varnish, wallpaper and other finishes to protect, maintain and decorate interior and exterior surfaces of domestic, commercial and industrial buildings and other structures.

Painters and decorators may perform the following tasks:

- work out the quantity of materials needed for the job by taking surface measurements or by looking at job specifications or drawings
- erect scaffolding, cradles and ladders and place dropsheets to protect areas from dripping paint
- remove old paint or paper using sanders, scrapers, blowtorches, liquid paint removers and steam strippers as appropriate
- prepare surfaces by fixing woodwork, filling or sealing holes, cracks and joints, and washing them down to remove dust and grease
- select and prepare paints to match colours by the addition of tints
- brush, roll or spray paints, stains, varnishes and other finishes
- when wallpapering, set out the area according to the pattern match and starting point in the room, cut the paper to the appropriate length, apply paste to the back of each strip and hang the paper on the wall, smoothing out any wrinkles or bubbles
- spray paint surfaces using a spray gun or specialised equipment
- apply decorative paint finishes such as stencils, colour glaze, graining, marbling and lettering
- wash equipment and clean work areas.

Painters and decorators may concentrate on a specific area of work, such as the internal or external painting of domestic homes, commercial buildings or industrial structures and equipment.

They often work from ladders and scaffolding and do a lot of bending and stretching.

#### Personal Requirements

- physically fit
- able to work at heights
- enjoy practical work
- good hand-eye coordination
- normal colour vision
- good sense of balance
- able to work independently or as part of a team.

#### Education and Training

To become a painter and decorator you usually have to complete an apprenticeship in General Construction (Painting and Decorating). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.



## Employment Opportunities

Painters and decorators are usually employed by painting and decorating contracting firms, or are self-employed contractors. Some work for government agencies concerned with public works, housing and railways. Advancement to supervisory positions, technical training or sales work is possible.

Opportunities for painters depend mainly on the level of building and renovation activity.

### For Further Information

- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ mbassist@mbav.com.au 🌐 www.mbav.com.au
- Master Painters Association of Victoria ☎ (03) 9813 5922  
✉ mail@mpav.com.au 🌐 www.mpav.com.au

### Related Jobs

Plasterer (p 323); Signmaker (p 372); Visual Merchandiser (p 430).

## Panel Beater

Also known as Autobody Repairer.

Panel beaters repair damage to metal, plastic and fibreglass bodywork on vehicles. They also make and form vehicle panels using machines or hand tools.

Panel beaters may perform the following tasks:

- remove damaged panels and components by unbolting or cutting them away
- remove dents by hammering panels with special panel beating tools such as planishing hammers
- straighten badly damaged vehicles using mechanical and hydraulic equipment to obtain door, boot and bonnet clearances
- cut and join replacement sections or damaged panels using oxyacetylene and electric welding equipment
- fill dents with plastic fillers and file, grind and sand repaired surfaces using power and hand tools
- fit the repaired panel on the framework of the vehicle and refit body hardware such as door locks and door trims
- replace badly damaged sections with new or second-hand panels
- realign chassis and body frames, and use chassis alignment machines and measuring systems
- remove and replace accident-related mechanical items
- remove and replace auto-electric components
- help vehicle body builders to build custom-designed, speciality or vintage vehicles
- assist in spray painting vehicles.

Panel beaters work in workshops and wear protective clothing.

### Personal Requirements

- enjoy practical and manual work
- able to work with hand tools and machines
- good hand-eye coordination
- able to visualise the end product
- normal colour vision
- good at technical activities.

### Education and Training

To become a panel beater you usually have to complete an apprenticeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian

Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Panel beaters mainly work for crash repairers, service stations, new and used car dealers, and motor vehicle manufacturers. A few work for motor body builders on the construction of new bodywork.

Panel beaters may progress to supervisory and management positions, especially in larger organisations. Sales positions in industrial machinery and equipment are also career options. Panel beaters may establish their own motor vehicle repair businesses. Some become loss assessors in insurance companies.

Others may move across from panel beating to related occupations such as vehicle painting and welding.

Employment opportunities depend on the number of cars on the road and the number of accidents, and technological change, especially in vehicle body structures and materials.

### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ manager@atv.org.au 🌐 www.atv.org.au
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ vacc@vacc.com.au 🌐 www.vacc.com.au

### Related Jobs

Tyre Fitter and Repairer (p 421); Vehicle Body Builder (p 425); Vehicle Dismantler (p 426); Vehicle Painter (p 426); Vehicle Trimmer (p 427); Windscreen Fitter (p 437).

## Paper and Pulp Operator

Paper and pulp operators assist in the various chemical and physical processes that turn wood and waste paper into pulp and paper products.

The paper and wood chip industry uses many different machines. Operators are therefore generally classified according to the type of machine they operate.

Paper and pulp operators may perform the following tasks:

- operate controls to regulate the flow of white water and pulp stock into machine headboxes and onto wire-mesh belts for forming
- set up other equipment, start machines and observe paper to detect wrinkles and make adjustments to keep it smooth
- inspect samples of products and laboratory reports and adjust stock flow rates, speed and pitch of belts, frequency of shaking, and pressures on pulp rollers
- check and start supporting equipment such as agitators, pumps and filters
- put together production records and reports
- position rolls of paper on machine reel stands using hoists, and fasten collars and guides to secure them on shafts
- thread paper around tensioner rollers, through machines and onto take-up rollers
- adjust steam pressure and temperature of dryers and hot air rollers
- operate size tubs, or spray paper with dyes, steam or water to finish
- operate machines which cut paper from rolls into sheets, stack them and remove and stack defective sheets.

### Specialisations

**Paper Machine Operator** - uses computer control systems and manual procedures to operate papermaking machines, wastepaper hydra-pulpers, driers, supercalenders, winders, rewinders and cutters. Some paper mills also have finishers and converters who turn 5 tonne rolls of raw paper into products such as tissues and writing paper.



**Pulp Mill Operator** - uses grinders, batch digesters, pulp refiners, pulp driers and hydra-pulpers. These machines process wood and wood chips into pulp.

Paper and pulp operators need to be responsible and careful when handling machinery. Detailed safety instructions and regulations are often attached to these machines. Loose clothing is generally not permitted. Industrial glasses and earmuffs may have to be worn in some situations and long hair has to be tied back.

Paper and pulp operators work in a team environment. Working conditions may be hot or cold, noisy and dirty, and the work may be repetitive.

#### Personal Requirements

- enjoy practical and manual work
- aptitude for problem solving
- able to handle multiple tasks
- mechanical aptitude
- able to work as part of a team
- safety conscious.

#### Education and Training

You can work as a paper and pulp operator without formal qualifications. You will probably get some training on the job.

You can also become a paper and pulp operator through a traineeship in Pulp and Paper (General) or Pulp and Paper Manufacturing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Pulp and Paper Manufacturing Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Paper and pulp operators work for paper mills, which manufacture products such as containers, boxes, disposable paper products, paper bags, newsprint, printing and writing paper.

Paper mills are generally located close to the raw material needed to produce pulp and paper, and so are found in NSW, Queensland, SA, Tasmania, Victoria and WA.

Manufacturers of paper products operate in both city and country locations in these states.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Australian Plantation Products and Paper Industry Council  
☎ (02) 6273 8111 ✉ [info@a3p.asn.au](mailto:info@a3p.asn.au) ☎ [www.a3p.asn.au](http://www.a3p.asn.au)
- ForestWorks ☎ (03) 9321 3500  
✉ [forestworks@forestworks.com.au](mailto:forestworks@forestworks.com.au)  
☎ [www.forestworks.com.au](http://www.forestworks.com.au)

#### Related Jobs

Printing Hand (p 331); Printing Machinist (p 332).

## Paramedic

Also known as Ambulance Officer.

Paramedics provide pre-hospital emergency care, treatment and specialised transport for patients.

Paramedics may perform the following tasks:

- drive ambulances to sites of medical emergencies and accidents which may require the administration of advanced life support
- lift and place patients on stretchers, load the stretchers into ambulances and transport patients to hospital
- assess, treat and manage patients' treatment on the way to hospital
- administer pain relieving drugs and replace fluids, often by inserting tubes into veins
- prepare patient care records and other written reports on the state of patients' injuries and the treatment provided
- attend public gatherings, such as large sports events, where accidents or other health emergencies may occur
- provide routine transport for patients from home to hospital and return (e.g. for patients requiring further treatment or specialised treatment such as occupational therapy and chemotherapy)
- perform daily vehicle and equipment checks, making sure that medical supplies, including drugs, are accounted for and that equipment and ambulances are in good working order.

Paramedics work in teams and in shifts. They work in all kinds of weather conditions. They are required to assist in a range of incidents, including motor vehicle accidents and medical emergencies inside and outside domestic premises, building sites and public areas. They may work in confined spaces, such as under vehicles and buildings, and at sites of hazardous material accidents such as fires and chemical spills. They work closely with members of other emergency services such as firefighters, police and the State Emergency Service (SES).

#### Specialisations

**Paramedic Clinical Instructor** - delivers training and support to paramedic interns.

**Intensive Care Paramedic** - attends life-threatening emergencies such as heart attacks and car accidents, and gives intensive treatment to patients before arrival at hospital. They receive more training in the areas of anatomy, physiology, pathophysiology and pharmacology to increase their capacity to make complex clinical decisions without medical consultation.

**Rescue Paramedic** - provides pre-hospital care in remote and difficult locations. They must be highly skilled as most rescue operations are undertaken in life-threatening circumstances.

#### Personal Requirements

- able to remain calm and control emotions in stressful situations
- able to think clearly and act quickly
- good level of health and fitness
- good analytical and problem solving skills
- able to work alone and as part of a team
- able to follow instructions and guidelines
- good communication and interpersonal skills
- clear decision making skills and judgement
- caring, tolerant and non-judgmental attitude
- enjoy working with people from diverse backgrounds
- committed to developing and maintaining skills.

#### Education and Training

To become a paramedic you usually need to complete one of the degree courses below. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the universities for more information as requirements may change.

Graduates and students of these courses are eligible to apply to Ambulance Victoria as a Graduate Paramedic and complete a one year practical training program.



Alternative entry may be available. Contact Ambulance Victoria and discuss your circumstances. Positions are usually advertised in the press at the beginning of the year.

#### Degree Courses

**Australian Catholic University - Melbourne Campus:**

Bachelor of Paramedicine, 3 years full time or equivalent

**Monash University - Peninsula Campus:**

Bachelor of Emergency Health (Paramedic), 3 years full time or equivalent

**Victoria University - St Albans Campus:**

Bachelor of Health Science (Paramedic), 3 years full time

#### Additional Information

Before undertaking the clinical placements required by the above courses, students will need to obtain a Police Check, a Senior First Aid Certificate, a Working with Children Check, and Medical and Physical Capacity Checks.

Applicants are also required to provide a five year National Police History Check upon application as a Graduate Paramedic with Ambulance Victoria, and hold an open-class drivers licence with a good driving record. All applicants must be Australian citizens or have unrestricted working rights visas.

#### Employment Opportunities

Paramedics can be based in the metropolitan area or in rural locations. Competition for available places is very strong.

#### For Further Information

- Ambulance Victoria ☎ (03) 9840 3688

✉ [hr.team@ambulance.vic.gov.au](mailto:hr.team@ambulance.vic.gov.au)

🌐 [www.ambulance.vic.gov.au](http://www.ambulance.vic.gov.au)

#### Related Jobs

Anaesthetic Technician (p 65); Midwife (p 274); Nurse - Enrolled (p 295); Nurse - Registered (p 296); Radio Despatcher (p 345).

### Park Ranger 🌳

Also known as National Parks and Wildlife Ranger and Ranger - Park.

Park rangers control, supervise and manage national parks, scenic areas, historic sites, nature reserves and other recreational areas.

Park rangers may perform the following tasks:

- assist with guided tours and promote understanding and appreciation of the natural and cultural features of the park
- inform visitors of the park facilities and supervise public visits
- advise visitors of park rules and regulations and enforce these when necessary
- direct parking, control traffic and collect fees from campers and visitors
- patrol waterways, roads and tracks to observe and report on the park environment, including the condition of animals and plants
- make sure endangered animals and plants are protected, and assist in related research projects
- make sure that parks, park facilities and equipment are clean and properly maintained
- assist in the development of visitor facilities
- assist in wildlife management projects, including surveys and monitoring of wildlife
- participate in search and rescue operations
- supervise and coordinate fire management, weed eradication and pest-control programs

# SAVE LIVES BE A HERO ALL IN A DAY'S WORK

## BECOME A PARAMEDIC WITH A DEGREE FROM VICTORIA UNIVERSITY

As a Paramedic you'll face challenges every day, but it's not just a job, it's a career that can save lives. If you want to help people in their time of need, a Paramedics qualification from Victoria University will give you the skills and knowledge you need to work in this rewarding field.

To find out more about studying Paramedics at Victoria University call 1300 VIC UNI or visit our website.

**[vu.edu.au/hes](http://vu.edu.au/hes)**

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- investigate and report to supervisors on matters relating to park management
- support local communities in protecting their cultural heritage and in developing sustainable land management practices
- conduct research into the protection and recording of Aboriginal and historical sites
- supervise and train park staff and volunteers
- oversee crews of general maintenance workers and contractors
- attend to administrative and clerical duties
- prepare, review and implement reports, submissions, management plans, development proposals and environmental impact assessments.

A park ranger working in wildlife management may also perform the following tasks:

- capture and relocate potentially dangerous animals
- manage commercial and recreational harvesting of native wildlife
- inspect commercial operations making use of wildlife
- make sure people follow laws and procedures
- process animal permits
- care for sick, injured or orphaned animals
- clean cages and prepare food and water for caged and captive animals
- make sure public facilities are clean and operable.

With experience and sometimes further training, park rangers may progress to professional science positions or general management.

Park rangers work in many environments, such as snow fields, rainforests, coastal regions and semi-arid areas. They may be required to work in remote areas and move from park to park. All rangers have contact with the public. Park rangers often work on weekends and public holidays.

#### Specialisation

**Indigenous Park Ranger** - manages areas of parkland and its usage through their knowledge of Indigenous culture and heritage, often working with Indigenous communities to identify and protect sites of special significance.

#### Personal Requirements

- able to make accurate observations and recordings
- good communication skills
- able to organise and supervise work
- enjoy dealing with people
- able to handle animals with confidence and patience
- interested in land management and natural conservation
- enjoy science
- enjoy working outdoors in all weather conditions
- able to endure isolation and limited social contact
- mechanical aptitude
- willing to fly in light aircrafts
- willing to be involved in incident management duties
- a full unrestricted manual vehicle drivers licence.

#### Education and Training

You can work as a park ranger without formal qualifications. However, entry to this occupation may be improved if you have qualifications and/or work experience. To work as a park ranger with Parks Victoria you usually have to complete a degree at university in a relevant discipline such as botany, environmental science, geography, natural resource management or park management. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, geography, mathematical methods, higher level mathematics, and physics are normally required.

The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the universities you are interested in for more information as requirements may change.

You can work as an Indigenous park ranger without formal qualifications, but requirements may vary between employers. Contact the Department of Sustainability and Environment for further information.

You can also become a park ranger or Indigenous park ranger through an apprenticeship in Conservation and Land Management. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Most universities in Victoria offer degree courses with a major in botany, environmental science, geography, natural resource management or park management. Contact your preferred institution for further details.

#### Additional Information

Once employed, rangers often receive training in wildlife handling, fire management, weed eradication, pest control, and enforcement.

#### Employment Opportunities

Employers usually require some evidence of park or nature orientated experience before employing persons in this field. Park rangers are mainly employed by government agencies. Competition for positions is strong.

There is some movement of park rangers between states and into forest officer, fisheries officer or land protection officer positions. Some opportunities may also be available to work as conservation officers with local councils.

#### For Further Information

- Parks Victoria ☎ 13 19 63 ✉ [info@parks.vic.gov.au](mailto:info@parks.vic.gov.au)  
🌐 [www.parkweb.vic.gov.au](http://www.parkweb.vic.gov.au)

#### Related Jobs

Agricultural Scientist (p 57); Botanist (p 91); Fisheries Officer (p 184); Forest Technical Officer (p 192); Forester (p 194); Landcare Worker (p 241); Local Government Inspector (p 251); Natural Resource Manager (p 287); Pest and Weed Controller (p 313).

## Parliamentarian

Also known as Member of Parliament and Politician.

Parliamentarians are elected by the people (constituents) of a particular region (such as an electorate) to represent their interests. They make decisions in federal, state or territory parliaments and undertake activities in their local electorates.

Parliamentarians may perform the following tasks:

- present issues for debate and discussion in parliament
- propose and debate new legislation and changes to existing legislation
- develop policy that best serves the interests of the public and the electorate
- investigate matters of concern to the public or particular interest groups
- present petitions on behalf of concerned interest groups
- serve on parliamentary committees or enquiries
- manage an office in their home electorate and in the house of parliament.



Parliamentarians have a high level of personal contact with the public. Elected parliamentarians tend to spend most of their time working with constituents who are seeking assistance with issues such as pensions, taxation, immigration, education, health services, visas and other matters of public concern.

#### Personal Requirements

- good oral and written communication skills
- enjoy talking to, working with, and helping people
- able to apply sound judgment
- enjoy dealing with issues in current affairs and politics
- prepared to work long hours
- willing to travel and live away from home when required
- sound management skills.

#### Education and Training

There are no specific education requirements to become a parliamentarian, but it helps to have a broad educational background. Most parliamentarians have already established successful careers in other fields such as law, business, agriculture, economics, industrial relations or community services before standing for election. They may also have had previous experience as councillors, who perform many of the same tasks as parliamentarians at the local government council level. Parliamentary skills are usually developed on the job and through day-to-day contact with colleagues and party officials.

However, entry to this occupation may be improved if you have a degree in political science, law, business, economics or an area in the humanities, such as English or history. These courses are widely available at universities in Victoria. Refer to institution handbooks for further details. See separate entries for Economist, Foreign Affairs and Trade Officer, Lawyer, Political Scientist, Public Servant - Australian Public Service, Public Servant - State Government and Trade Union Official for relevant education and training requirements.

To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

#### Additional Information

In Victoria, parliamentarians can be elected to the Federal Senate or House of Representatives, or at the state level, to the State Legislative Assembly and the Legislative Council. Local government councils throughout the state also have elected councillors. There are 49 representatives at the federal level, 127 at the state level and approximately 750 local government councillors in Victoria.

#### Employment Opportunities

Most parliamentarians in Australia are members of political parties. To be elected to parliament as a member of a political party you must first be pre-selected by the party to represent them in your electorate. You can also stand for election as an independent candidate.

Parliamentarians are generally well paid, but have no long-term employment security. The position of local government councillor is usually unpaid.

Parliamentarians who gain extensive experience and develop a high profile in parliament and in the community can, if they are a member of a party in government, be promoted to ministerial positions. Ministers are responsible for managing a particular area of government such as defence or education. Experienced parliamentarians in opposition parties can become shadow ministers, who are responsible for developing their party's policies and leading

debate in a particular area of government. Familiarity with specialist areas such as economics, finance, tourism and industrial relations may be advantageous to parliamentarians who are seeking particular portfolios.

Parliamentarians chosen to lead their party can become Prime Minister, Premier or Chief Minister if their party is elected to form government. Advancement to these levels of responsibility is dependent on talent, interpersonal skills, perseverance, and the number of years of experience.

#### For Further Information

- Australian Political Studies Association ☎ (02) 6125 2257  
✉ [Mary.Hapel@anu.edu.au](mailto:Mary.Hapel@anu.edu.au) 🌐 [www.auspsa.org.au](http://www.auspsa.org.au)
- Office Manager - Parliamentary Education Office  
☎ (02) 6277 3147 ✉ [info@peo.gov.au](mailto:info@peo.gov.au) 🌐 [www.peo.gov.au](http://www.peo.gov.au)

#### Related Jobs

Economist (p 154); Foreign Affairs and Trade Officer (p 191); Lawyer (p 244); Political Scientist (p 328); Public Servant - Australian Public Service (p 340); Public Servant - State Government (p 341).

## Pastrycook

Also known as Pastry Chef and Pâtissier.

Pastrycooks mix, bake, fill, ice and decorate all kinds of cakes and pastries.

Pastrycooks may perform the following tasks:

- weigh, mix or knead, mature, mould and shape mixture before baking
- load and unload mixture into ovens using tins and trays
- operate and monitor baking equipment
- glaze or decorate with icing or cream
- order baking supplies from wholesalers
- check and maintain the cleanliness of equipment and utensils to make sure health and safety regulations are met
- serve customers.

Pastrycooks may specialise as chocolatiers, pâtissiers, ice carvers, sculptors and festive cake decorators.

Pastrycooks stand most of the day. They may work broken shifts at night or on weekends and public holidays. Pastrycooks must be prepared to start work early in the morning. Conditions in the bakery are usually hot and humid.

#### Personal Requirements

- enjoy practical work
- good hand-eye coordination
- artistic and creative
- good health, with no skin allergies or chronic chest complaints
- clean and tidy.

#### Education and Training

To become a pastrycook you usually have to complete an apprenticeship in Hospitality (Pâtisserie) or Food Processing (Retail Baking) Cake and Pastry. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.



### Employment Opportunities

Most pastrycooks work in specialist cake shops, manufacturing firms, independent and franchise bakeries and in-store supermarket bakeries. A small number of pastrycooks work in international or five-star hotels. Demand for pastrycooks is partly seasonal, with reduced work available in summer, although sales of cakes and pastries are at their highest around Christmas.

Opportunities for promotion exist within the industry. Demand is greater for highly skilled and experienced pastrycooks. Pastrycooks with sufficient start-up funds sometimes open their own business.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- National Baking Industry Association ✉ [nbia@nbia.org.au](mailto:nbia@nbia.org.au)  
🌐 [www.nbia.org.au](http://www.nbia.org.au)
- Cake Decorating Organisations  
🌐 [www.cakedirectory.com/org.htm](http://www.cakedirectory.com/org.htm)
- The Baking Industry Association of Victoria (Inc)  
☎ (03) 5461 1150 ✉ [biav@baking.com.au](mailto:biav@baking.com.au)  
🌐 [www.baking.com.au](http://www.baking.com.au)

#### Related Jobs

Baker (p 83); Chef (p 109); Confectioner (p 126); Cook (p 130).

## Patent Examiner

Patent examiners investigate patent applications and report on whether they comply with the requirements of Australian patent legislation before granting patent rights for new inventions.

The work of patent examiners is technically complex. It involves knowledge of technical processes used in industry and advances in scientific research. It also involves making legalistic decisions based on their knowledge of patent law.

Patent examiners may perform the following tasks:

- assess whether patent applications provide an adequate technical description of the invention
- assess whether the patent rights sought are justified and match the invention's technical description
- search online databases to discover similar patents held in Australia and overseas
- assess whether the advances claimed for the originality of the invention's features are new
- report their findings to the patent applicant or the applicant's legal representative.

#### Personal Requirements

- decision making and research skills
- good oral and written communication skills
- able to work as part of a team
- Australian citizenship or eligibility to apply for citizenship.

#### Education and Training

To become a patent examiner you usually have to study science or engineering at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact Open Universities Australia (see the Learning Pathways section) or the universities you are interested in for more information as requirements may change.

Patent examiners are employed by IP Australia, the government body responsible for administering patents, trademarks and design rights in

Australia. IP Australia recruits graduates from a range of science and engineering disciplines, including mechanical engineering, biomedical engineering, chemical engineering, chemistry, biotechnology, pharmacology, electronics, telecommunications, computer science and physics. The ability to speak a second language may be an advantage.

People engaged as patent examiners are required to successfully complete a competence based training course conducted by IP Australia. Patent examiners are paid full salary while undertaking the training course. The training program is subject to assessment and must be successfully completed.

For details of relevant degree courses see the entries for Chemical Engineer, Chemist, Computer Engineer, Electrical Engineer, Electronics Engineer, Mechanical Engineer and Physicist.

#### Employment Opportunities

Experienced examiners of patents have additional career opportunities in other government departments, in the patent sections of large companies, or with the numerous patent attorney firms as a technical assistant.

IP Australia normally runs two recruitment rounds for patent examiners each year. Vacancies with IP Australia are advertised with APSJobs and on the IP Australia website.

#### For Further Information

- Campaign Coordinator, IP Australia (National) ☎ (02) 6283 2100  
✉ [recruitment@ipaustalia.gov.au](mailto:recruitment@ipaustalia.gov.au) 🌐 [www.ipaustalia.gov.au](http://www.ipaustalia.gov.au)

#### Related Jobs

Chemical Engineer (p 110); Chemist (p 111); Electrical Engineer (p 156); Electronics Engineer (p 162); Mechanical Engineer (p 263); Physicist (p 318).

## Personal Care Worker

Also known as Nurse's Aide, Nursing Assistant and Personal Care Assistant.

Personal care workers assist in caring for patients in hospitals, nursing homes, clinics and institutions for the aged or disabled.

Personal care workers may perform the following tasks:

- assist nursing staff to lift and turn bedridden patients
- help to shower, bathe and shave patients while supervised by a registered nurse
- assist clients with dressing and eating
- help clients to move around and communicate
- apply practical intervention procedures for dementia or behavioural problems
- make sure that an adequate supply of clean clothing and linen is available for the client and that soiled items are removed and cleaned
- observe and report any changes in the client's condition or any complaints about care to a supervisor
- assist with rehabilitation exercises and basic treatment and medications
- perform basic procedures such as taking blood pressure and applying and changing dressings
- accompany patients who are ready for discharge to the central waiting area.

Personal care workers are usually required to carry out rostered shift work that includes night and weekend work. Some positions may be casual.



With experience and further training, personal care workers can become enrolled nurses or registered nurses.

#### Personal Requirements

- patience
- good communication skills
- physically fit
- able to lift heavy objects
- commitment to the rights of elderly and disabled people to live dignified lives.

#### Education and Training

You can work as a personal care worker without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to certificate courses usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Personal Care Worker at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a personal care worker through a traineeship in Aged Care, Disability or Home and Community Care. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Community Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Personal care workers are employed in hospitals, nursing homes, institutions for the aged and disabled, or in people's homes.

Job opportunities are growing with the ageing of the population.

#### For Further Information

- Community Services and Health Industry Skills Council Ltd  
[www.careersthatmatter.com.au](http://www.careersthatmatter.com.au)
- DIAL-AN-ANGEL ☎ 1300 721 111  
[administration@dialanangel.com](mailto:administration@dialanangel.com) [www.dialanangel.com](http://www.dialanangel.com)

#### Related Jobs

Nurse - Enrolled (p 295); Special Care Worker (p 376); Therapy Aide (p 404); Ward Assistant (p 432).

## Pest and Weed Controller ✨

Also known as Pest Management Technician and Fumigator.

Pest and weed controllers kill or control plants, animals and insects that are considered troublesome or harmful to agricultural, industrial or domestic activities.

Pest and weed controllers may perform the following tasks:

- inspect properties, identify problems, determine treatments and provide estimates of costs at the request of landowners or government authorities
- advise on preventative measures
- mix chemicals to specified concentrations
- take safety precautions in the use and storage of chemicals
- apply first aid measures relating to chemicals used

- operate generators, compressors, and manual and electric pumps to inject or spray liquid and gaseous pesticides and herbicides
- fumigate storage spaces, houses or office furnishing and clothing
- dust infested areas with appropriate powder or lay baits
- apply pesticides or herbicides in the pre-treatment of building sites
- take care to minimise damage to the other plants, animals and the environment
- carry out simple maintenance practices to prevent pests entering buildings, such as bird-proofing roofs, and filling cracks and crevices
- maintain equipment in safe, efficient working order
- maintain work records of each property inspected, the pest or weed problem, chemicals used and amount of time spent at each location.

Pest and weed controllers have a lot of contact with chemicals and wear protective clothing such as overalls, gloves and masks.

Weed controllers work mainly outside while pest controllers are sometimes required to work in cramped conditions, for example under houses or in attics.

#### Personal Requirements

- free from breathing problems and related conditions
- no known allergies to the chemicals used
- safety conscious
- able to make accurate observations and calculations
- responsible attitude.

#### Education and Training

You can work as a pest and weed controller without formal qualifications but you will need to obtain a special licence, which requires some study. Informal training is usually given on the job, although there are a number of courses available that may assist you in gaining employment. Entry to the certificate course below usually requires Year 10 and access to a work site. Contact the institution for full details.

You can also become a pest and weed controller through a traineeship in Asset Maintenance (Pest Management - Technical). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Northern Melbourne Institute of TAFE - Fairfield Campus:*

Certificate III in Asset Maintenance (Pest Management - Technical)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Licensing under the Health Act 1958 requires all persons who apply herbicides or pesticides for a fee or reward to have a pest control trainee or technician licence. To obtain a trainee licence you must be at least 16 years old. To obtain a technician licence you must be at least 18.

Contact the Department of Health for more details.

#### Employment Opportunities

Pest and weed control is largely seasonal work with high demand for experienced staff in the summer months and less demand in winter. Controllers may work for large pest control companies servicing a wide geographical area, or they may be self-employed, operating in a relatively small area and/or specialising in a particular type of control.



Demand is to some extent affected by the level of housing construction (new houses are required by law to be treated).

#### For Further Information

- Australian Environmental Pest Managers Association (National Office) ☎ 1800 252 772 ✉ info@aepma.com  
🌐 www.aepma.com.au
- Pest Control Program, Food Safety and Regulatory Activities, Department of Health ☎ 1300 887 090  
✉ pestcontrol@health.vic.gov.au  
🌐 www.health.vic.gov.au/pestcontrol

#### Related Jobs

Agricultural Technical Officer (p 58); Environmental Health Officer (p 168); Forest Worker (p 193); Forester (p 194); Natural Resource Manager (p 287); Park Ranger (p 309).

## Petroleum and Gas Plant Operator

Petroleum and gas plant operators control the operation of the plant machinery and equipment to pump oil and gas from wellheads, and refine, process and store petroleum products.

Petroleum and gas plant operators may perform the following tasks:

- position equipment and connect it to wellheads
- operate pumping equipment to transfer oil and gas from wellheads to refineries, within refineries or to storage facilities
- control equipment to process, manufacture or blend oil, gas and additives into petroleum and gas products, such as fuels, oils and asphalt
- set controls and observe gauges and instruments on equipment
- analyse samples and record data
- check equipment for malfunctions and test well pipes for leaks and fractures and arrange maintenance
- control the flow of oil and gas through pipelines.

In most refineries and plants, the instruments are computer controlled. Knowledge of chemical and physical processes and equipment performance is very important to enable optimum production.

Shift work may be required.

#### Personal Requirements

- enjoy practical and mechanical activities
- able to work as part of a team
- able to follow written instructions
- good communication skills
- physically fit
- good with numbers
- good problem-solving and analytical skills
- aptitude for computerised work
- good hand-eye coordination.

#### Education and Training

You can work as a petroleum and gas plant operator without formal qualifications. You will probably get some informal training on the job.

You can also become a petroleum and gas plant operator through a traineeship in Process Plant Operations. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Chemical, Hydrocarbons and Refining Training Package that will expand your career opportunities

within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Petroleum and gas plant operators are employed in the minerals industry, in onshore and offshore oil and gas processing plants, in refineries and in oil storage facilities (terminals).

Opportunities depend on the level of exploration activity, which is determined mainly by world prices and demand and also by the profit margin of Australian refineries.

The increase in global energy demands for petroleum and gas has led to the expansion of activity in this area.

#### For Further Information

- Australian Industry Group 🌐 www.zoomplus.aigroup.asn.au
- Australian Petroleum Production and Exploration Association Ltd (National Office) ☎ (02) 6247 0960 ✉ appea@appea.com.au  
🌐 www.appea.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au

#### Related Jobs

Chemical Engineer (p 110); Chemical Plant Operator (p 111); Machine Operator (Non-metal products) (p 252); Plastics and Composites Processor (p 324).

## Petroleum Engineer

Petroleum engineers plan and manage the recovery of oil and gas from petroleum reservoirs.

Petroleum engineers may perform the following tasks:

- study geological and geophysical information to determine what type of drilling equipment and method of drilling would be the most efficient and cost effective, and plan the locations for drilling
- assist in estimating the economic potential of oil and gas reserves by directing the testing of boreholes
- identify the liquids or gases contained, the rate at which they can be recovered, and the temperatures and pressures that need to be dealt with
- determine the best way to develop oil and gas reserves and to maximise recovery and profit
- determine methods of controlling the flow of oil or gas from wells and keep records of production
- plan ways to transport the oil and gas reserves to the seabed, including the use of downhole pumps and gaslift systems
- study operating equipment, environmental problems and the treatment of oil to remove sediment and water
- conduct operations and activities in accordance with environmental policies and codes
- work safely and use any equipment provided for health and safety purposes
- monitor the necessary safety procedures and facilities for personnel working on the project.

The petroleum engineering profession offers a number of specialisations with the major areas including drilling engineering, formation evaluation, production engineering and reservoir engineering. Other specialisations include drilling and workover fluid engineering, petrophysics and design. Petroleum engineers also work closely with people from other disciplines such as geologists and geophysicists.

Petroleum engineers may work in remote areas.



### Personal Requirements

- enjoy technical and engineering activities
- willing to contribute and adhere to the safety requirements of an operation
- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work without supervision
- able to accept responsibility.

### Education and Training

To become a petroleum engineer you usually have to study engineering at university with a major in petroleum or oil and gas engineering. You may also consider related specialisations such as chemical, civil, mechanical or mining engineering. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

There are no suitable courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

### Additional Information

Graduates may be eligible for membership of Engineers Australia.

Registration or licensing may be required. Contact the Society of Petroleum Engineers for further information.

### Employment Opportunities

Petroleum engineers are employed by oil and gas production companies and oil industry service contractors.

Employment opportunities for petroleum engineers exist with major oil and exploration companies, contracting firms and government.

Petroleum engineers may work on site in oil fields, production centres and in the head office of companies which are based in a metropolitan area. They may also work as consultants to the industry. Petroleum engineers may rise to managerial positions in the oil industry.

### For Further Information

- Australian Petroleum Production and Exploration Association Ltd (National Office) ☎ (02) 6247 0960 ✉ [appea@appea.com.au](mailto:appea@appea.com.au) 🌐 [www.appea.com.au](http://www.appea.com.au)
- Careers Centre, Engineers Australia ☎ 1300 366 613 ✉ [careers@engineersaustralia.org.au](mailto:careers@engineersaustralia.org.au) 🌐 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Engineer Your Career 🌐 [www.engineeryourcareer.org.au](http://www.engineeryourcareer.org.au)
- Minerals Council of Australia ☎ (02) 6233 0600 ✉ [education@minerals.org.au](mailto:education@minerals.org.au) 🌐 [www.miningcareers.com](http://www.miningcareers.com)
- Society of Petroleum Engineers 🌐 [www.spe.org](http://www.spe.org)

### Related Jobs

Chemical Engineer (p 110); Driller's Assistant (p 152); Environmental Engineer (p 167); Geological Engineer (p 201); Geologist (p 202); Geophysicist (p 204); Mining Engineer (p 278).

## Pharmacist

Pharmacists supply, dispense and manufacture medicines and drugs in hospitals and community pharmacies, and advise on their appropriate use. They also conduct research into the formulation, production, storage, quality control and distribution of medicines and drugs.

Pharmacists may perform the following tasks:

- prepare or supervise the dispensing of medicines, ointments and tablets
- advise patients on how their medicines are to be taken or used in the safest and most effective way in the treatment of common ailments
- advise members of the public and other health professionals about medicines (both prescription and over-the-counter medicines), including appropriate selection, dosage and drug interactions, potential side effects and therapeutic effects
- select, give advice on and supply non-prescription medicine, sickroom supplies and other products
- develop legally recognised standards, and advise on government controls and regulations concerning the manufacture and supply of medicines
- work in the research and development of medicines and other health-related products
- be involved in the management of pharmaceutical companies.

### Specialisations

**Community Pharmacist** - is involved in dispensing prescriptions, providing advice on drug selection and usage to doctors and other health professionals, providing primary healthcare advice and support, and educating customers on health promotion, disease prevention and the proper use of medicines. They usually have a high level of contact with the public.

**Consultant Pharmacist** - is either employed by community pharmacies or hospitals, or self-employed and contracts with community pharmacies to provide medication reviews for residential care or ambulatory care patients and/or other medication related cognitive services.

**Government Pharmacist** - is involved with regulatory control of pharmaceutical and medical products at state, territory or federal level.

**Hospital Pharmacist** - operates as part of a healthcare team and is involved in monitoring medication usage, counselling patients, providing drug information and advice to health professionals and the community, conducting clinical trials and preparing products for patient use. They usually have a lot of contact with other health professionals and members of the public.

**Industrial Pharmacist** - is involved in research and the development, manufacture, testing, analysis and marketing of pharmaceutical and medical products.

### Personal Requirements

- careful and methodical
- able to work independently
- good communication skills
- able to deal sensitively with clients' needs.

### Education and Training

To become a pharmacist you usually have to study pharmacy at university and complete pre-registration training under the supervision of a registered pharmacist. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry and mathematics are normally required. Applicants may also be required to attend an interview. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

*La Trobe University - Bendigo Campus:*

Bachelor of Pharmacy, 4 years full time



### *Monash University - Parkville Campus:*

Bachelor of Pharmacy, 4 years full time

#### *Additional Information*

Entry to pharmacy courses is highly competitive.

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including pharmacy. Boards in each State and Territory assist the Pharmacy Board of Australia by implementing these national standards and policies. For full details, see the Pharmacy Board of Australia's website.

To practise as a pharmacist in Australia, it is necessary to be registered with the Pharmacy Board of Australia. Before applying for full registration, pharmacy graduates must successfully complete a set number of hours of supervised practice while undertaking an accredited intern training program, and sit a written and oral examination conducted by the Board.

After this period of practical experience, graduates are also eligible for membership of the Pharmaceutical Society of Australia and the Society of Hospital Pharmacists of Australia.

#### *Employment Opportunities*

Most pharmacists work in community pharmacies, with some owning their own practice or partnership. They also work in hospital pharmacies providing services to patients. A number are employed by pharmaceutical companies in drug research, marketing and design, or by universities and TAFE institutes.

#### *For Further Information*

- Pharmacy Board of Australia ☎ 1300 419 495  
🌐 [www.pharmacyboard.gov.au](http://www.pharmacyboard.gov.au)
- Pharmaceutical Society of Australia (National Office)  
☎ (02) 6283 4777 ✉ [psa.nat@psa.org.au](mailto:psa.nat@psa.org.au) 🌐 [www.psa.org.au](http://www.psa.org.au)
- The Society of Hospital Pharmacists of Australia  
☎ (03) 9486 0177 ✉ [shpa@shpa.org.au](mailto:shpa@shpa.org.au) 🌐 [www.shpa.org.au](http://www.shpa.org.au)
- Pharmacists Division, Association of Professional Engineers, Scientists and Managers Australia ☎ (03) 9695 8836  
✉ [pharmacist@apesma.asn.au](mailto:pharmacist@apesma.asn.au) 🌐 [www.apesma.asn.au](http://www.apesma.asn.au)

#### *Related Jobs*

Biotechnologist (p 89); Chemist (p 111); Dispensary Technician (p 148); Forensic Scientist (p 192); Medical Scientist (p 270); Pharmacologist (p 316); Sales Assistant (p 358); Toxicologist (p 410).

## **Pharmacologist**

Pharmacologists develop and evaluate the origin, nature, chemistry, effects and uses of drugs in humans and animals.

Pharmacologists may perform the following tasks:

- discover, develop and evaluate substances for their use in the treatment of disease
- modify the chemical structure of an effective substance to eliminate undesirable side-effects
- devise and carry out experiments to determine how drug concentrations in the body change over time
- test newly discovered or manufactured substances for their safety, activity and possible use as drugs
- study what happens to a drug after it has been administered
- investigate drugs for unwanted and dangerous side-effects and establish the reason for these
- study other substances which affect living organisms, for example pollutants, poisons and insecticides

- write scientific reports on research, investigations and more general information for scientific, managerial, political and general audiences
- provide policy and clinical advice to managers, politicians, primary producers, health care workers and the general public.

#### *Specialisations*

**Clinical Pharmacologist** - a specialist physician involved in direct patient care. They often manage patients with multiple medical problems, who are often prescribed multiple medications, which may or may not agree with each other.

**Non-clinical Pharmacologist** - specialises in research and experimental studies for the development of drugs in preparation for clinical trials.

#### *Personal Requirements*

- enjoy and have aptitude for science and research
- able to think logically and analytically
- able to carry out detailed and accurate work
- good communication skills
- able to think creatively and solve problems
- able to work as part of a team.

#### *Education and Training*

To become a pharmacologist you usually have to study science or medical science at university with a major in pharmacology. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, physics, chemistry and biology are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### *Degree Courses*

##### *La Trobe University - Bundoora Campus:*

Bachelor of Medicinal Chemistry, majoring in pharmacology, 3 years full time or equivalent

##### *Monash University - Parkville Campus:*

Bachelor of Pharmaceutical Science, 3 years full time

##### *Monash University - Clayton Campus:*

Bachelor of Science, majoring in pharmacology, 3 years full time or equivalent

##### *RMIT University - Bundoora Campus:*

Bachelor of Applied Science (Pharmaceutical Sciences), majoring in pharmacology, 4 years full time or 7 years part time

##### *University of Melbourne - Parkville Campus:*

Bachelor of Biomedicine, majoring in pharmacology, 3 years full time or equivalent

Bachelor of Science, majoring in pharmacology, 3 years full time or equivalent

##### *Victoria University - St Albans Campus:*

Bachelor of Science (Biomedical Sciences), majoring in pharmacology, 3 years full time or equivalent

#### *Employment Opportunities*

Pharmacologists are employed across several industries including the pharmaceutical industry, scientific research, post-school education, government and private sector organisations (including research organisations), hospitals and other health services.

Demand is linked to factors such as growing need for medicines, the market for pharmaceutical products and levels of government funding for research.



### For Further Information

- Australian Society for Clinical and Experimental Pharmacologists and Toxicologists ☎ (03) 9416 3833 ✉ [ascept@clems.com.au](mailto:ascept@clems.com.au) 🌐 [www.ascept.org](http://www.ascept.org)
- The Association of Professional Engineers, Scientists and Managers, Australia ☎ (03) 9695 8800 ✉ [info@apesma.asn.au](mailto:info@apesma.asn.au) 🌐 [www.apesma.asn.au](http://www.apesma.asn.au)

### Related Jobs

Biochemist (p 88); Biomedical Engineer (p 89); Chemist (p 111); Environmental Scientist (p 169); Forensic Scientist (p 192); Marine Biologist (p 254); Medical Practitioner (p 268); Medical Scientist (p 270); Pharmacist (p 315); Tissue Culture Technician (p 408); Veterinarian (p 428); Zoologist (p 443).

## Photographer

Photographers operate cameras and lighting equipment to take photographs of people, places, products and other subjects.

Photographers may perform the following tasks:

- operate a range of cameras, lights and light-measuring devices
- work out the camera angle, light positions, exposure and composition
- offer technical solutions to illustrative problems
- advise on photographic approaches and the selection of locations, props, models and colour coordination
- use computers for such things as image manipulation and the production of visual images in print or digital form
- mix chemicals, process film and make enlarged prints.

Areas of specialisation for photographers include press, fashion, scientific, commercial, industrial, medical, portrait, wedding, advertising and architectural surveying.

Photographers stand most of the time and often carry heavy equipment. They may work on location or in a studio and sometimes in darkrooms when developing film.

### Personal Requirements

- artistic flair
- able to learn the technical aspects of photography
- self-motivated, with initiative and problem-solving skills
- interest in contemporary styles and trends in such things as graphics, architecture and fashion is an advantage.

### Education and Training

You can work as a photographer without formal qualifications. However, entry to this occupation may be improved if you have qualifications. Relevant qualifications include certificate courses in photography and diploma or degree courses in arts, visual arts or fine arts. Alternatively, on-the-job training obtained by working as an assistant to a photographer can provide the necessary skills to become a photographer.

Entry to the certificate courses usually requires at least Year 10. Entry to the diploma courses usually requires completion of Year 12. To get into the degree courses you usually need to gain your VCE with English. You may also have to present a portfolio of work and attend an interview. Access to a suitable camera is also required.

Photography courses usually have high materials costs and are highly competitive. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

Many institutions in Victoria offer courses in photography, arts, visual arts and fine arts. Contact your preferred institution for further details.

Costs, duration and entry requirements may vary between courses. See the online entry for Photographer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Additional Information

Graduates of certain courses may be eligible for full membership of the Australian Institute of Professional Photography, the Institute of Photographic Technology or the Australian Institute of Medical and Biological Illustration. Check with the relevant organisation for details.

### Employment Opportunities

Most photographers are self-employed and receive work on commission from advertising agencies; graphic design studios; and retail, manufacturing and service companies. They also receive commissions from printing houses, architects and the private community for weddings and portraiture. A small number work as press photographers.

The amount of work available is generally related to the level of economic activity. Success is directly related to the quality of work the photographer displays and the photographer's ability to promote that work. Although photography is a competitive field, there are usually opportunities available for photographers whose work is innovative.

### For Further Information

- Australian Institute of Professional Photography ☎ (03) 9856 0700 ✉ [enquiries99@aipp.com.au](mailto:enquiries99@aipp.com.au) 🌐 [www.aipp.com.au](http://www.aipp.com.au)
- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512 ✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Artist (p 75); Audiovisual Technician (p 80); Craftsperson (p 135); Film and Television Camera Operator (p 175); Film and Television Lighting Operator (p 177); Photographic Processor (p 317).

## Photographic Processor

Also known as Photographic Developer.

Photographic processors edit and adjust digital images on computers, develop black-and-white or coloured photographic film, and produce photographic prints using automatic, computer-based or other processes.

Photographic processors may perform the following tasks:

- sort films into bins according to brand and type
- remove exposed films from cartridges in a darkroom
- develop films to negative stage
- check the quality of negatives and forward them to the printing machine for the required number, size and type of prints
- upload digital images onto computers and make fine adjustments for contrast, density, saturation, cropping and colour balance before printing
- develop slide (E6) films, checking the quality of the slides before mounting
- check prints for colour quality and re-print if required
- package prints and negatives for collection
- check and refill chemicals, photographic paper and water supply for heating and cooling systems
- prepare chemical solutions for different techniques and effects
- hang film to dry
- scan negatives, prints and transparencies
- make copies of original prints
- operate enlargers to produce prints of non-standard sizes
- serve customers and collect money.



Photographic processors with suitable experience, and sometimes further training, may specialise in:

**Art photographic processing** which involves photograph retouching (by air brush or with computers), hand colouring and restoration.

**Darkroom** where film processing and/or printing is performed.

**Finishing** which encompasses custom framing, block mounting and laminating.

The increasing popularity of digital cameras has led to increased demand for the processing of digital images, which involves skills closely linked to computer graphics processing.

While it is becoming increasingly rare due to the onset of digital photography, some photographic processors are exposed to chemicals and fumes associated with developing and printing photosensitive film stocks. In these conditions, protective equipment such as rubber gloves and aprons must be worn.

Photographic processors working in small laboratories may be responsible for both the developing and printing of films. In larger organisations, these are separate jobs where teams of workers are supervised by a photographic technician.

Photographic processors may be required to work shifts. The volume of work can vary greatly, and therefore hours worked can vary from week to week.

#### Personal Requirements

- enjoy practical and manual activities
- good at technical activities
- aptitude for working with computers
- patience
- able to work independently.

#### Education and Training

You can work as a photographic processor without formal qualifications, but employers usually require at least Year 10. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

A range of relevant short courses are available through Registered Training Organisations, including TAFE. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

Costs, duration and entry requirements may vary between courses. See the online entry for Photographic Processor at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Employment Opportunities

Photographic processors are employed by film manufacturers, large wholesale laboratories and mini retail labs, camera shops and pharmacies. Lower skilled operators use semi-automated equipment in most laboratories.

Skilled technicians are employed by specialist professional laboratories. Experienced processors and technicians may advance to supervisory positions. Self-employment is also possible.

Due to the increased availability of digital technologies, the main growth of employment opportunities in this area is in the processing of digital images.

#### For Further Information

- Australian Institute of Professional Photography  
☎ (03) 9856 0700 ✉ [enquiries99@aipp.com.au](mailto:enquiries99@aipp.com.au)  
🌐 [www.aipp.com.au](http://www.aipp.com.au)
- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)

- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Graphic Prepress Tradesperson (p 207); Photographer (p 317).

## Physicist

Physicists study the behaviour of the physical world at the most basic level, and then find practical ways to apply new knowledge gained from their research in many areas of science and technology.

Physicists are usually identified within three broad roles:

- theoretical physicists who develop theories or models of how particular aspects of the world work
- experimental physicists who test these theories, determining their limits and suggesting new approaches to them
- applied physicists who apply these findings in practical settings, such as within industry and through the introduction of new technology.

There is interaction between all three roles and physicists generally have skills in each of these areas.

Physicists may perform the following tasks:

- observe and measure phenomena in the physical world, from the smallest subatomic particle through to the universe as a whole
- propose theories and models to explain those phenomena
- use computers to explore the consequences of those theories and models
- build equipment to make new types of measurement which, in many cases, have never been attempted before
- create new ways of understanding observations that have been made, including by developing new approaches
- use knowledge and/or technology to develop new materials, products and processes for use in industry, medicine, defence and other areas of research and development.

#### Specialisations

**Astrophysicist** - studies the characteristics of the solar system, stars and galaxies, and the universe as a whole. See the entry for Astronomer for more information.

**Atmospheric and Environmental Physicist** - studies how our environment works and how various aspects of the environment interact.

**Atomic and Molecular Physicist** - studies the behaviour and structure of atoms and molecules.

**Condensed Matter Physicist** - studies the properties and behaviour of condensed matter (solid state) under many conditions, often in the development of new devices for computers and consumer products.

**Cosmologist** - studies the characteristics and development of the universe as a whole.

**Medical and Health Physicist** - studies the practical applications of physics in hospitals, and develops and monitors safety limits in many workplaces. Medical physicists also develop and operate medical radiation therapy equipment.

**Nanotechnologist** - designs and manipulates structures at the atomic and subatomic level to create materials and devices of increased durability and efficiency. Nanotechnologists use a combination of techniques from across the sciences, including physics, chemistry, biosciences, material science and engineering.

**Nuclear/Particle Physicist** - studies the structure of the nuclei of atoms and the particles that make up those nuclei.



**Optical Physicist** - investigates the properties and behaviour of light in order to develop or refine devices such as lasers and optical fibre components for applications such as photonic communications.

Physicists may work in many other areas, including acoustics, biophysics, thermal physics, geophysics and teaching.

#### Personal Requirements

- aptitude for analysis and problem-solving
- enjoy research
- aptitude for mathematics and computing
- able to visualise and explain ideas clearly
- able to work independently or as part of a team.

#### Education and Training

To become a physicist you usually have to study science or applied science at university with a major in physics. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

The following universities offer a Bachelor of Science or Bachelor of Applied Sciences with a major in physics, astrophysics, photonics or nanotechnology, 3 years full time or equivalent.

*La Trobe University - Bundoora Campus*

*Monash University - Clayton Campus*

*RMIT University - City Campus*

*Swinburne University - Hawthorn Campus*

*University of Melbourne - Parkville Campus*

#### Employment Opportunities

Physicists are employed in universities, laboratories, and government organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Defence Science and Technology Organisation (DSTO), the Australian Nuclear Science and Technology Organisation (ANSTO), the Australian Antarctic Division and the Bureau of Meteorology. Physicists also work in private industry. They also work in hospitals, schools, and small, high-tech companies.

Physicists may be employed as research scientists, medical physicists, meteorologists, technologists, scientific programmers, technical salespeople, geophysicists, technical managers, health scientists and teachers. They may also be employed in an area in which they are responsible for very sophisticated equipment such as that used in bioscience and space science, or in areas such as paper manufacturing, minerals exploration or high-tech equipment sales.

Many physicists hold honours or higher degrees (e.g. PhD), and employment and promotional opportunities often depend on the qualification gained. Research positions are highly sought after and a PhD, obtained by research in a branch of physics, is usually required for these jobs. Opportunities for transfer interstate or overseas are high for experienced physicists.

Much of a physicist's training is concerned with the development of advanced skills in analytical and problem-solving techniques, which are valuable in a wide variety of other fields of employment such as management and administration, financial modelling, instrumentation, industrial research and development, and modelling in other scientific fields.

Demand for physicists is influenced by the level of government and private sector funding for research and development.

#### For Further Information

- Australian Institute of Physics (National Office) ☎ (03) 9646 9515  
✉ [aip@aip.org.au](mailto:aip@aip.org.au) 🌐 [www.aip.org.au](http://www.aip.org.au)

#### Related Jobs

Astronomer (p 77); Geophysicist (p 204); Materials Engineer (p 261); Mathematician (p 261); Meteorologist (p 273); Patent Examiner (p 312).

## Physiotherapist

Physiotherapists assess, treat and prevent disorders in human movement caused by injury and disease.

Physiotherapists may perform the following tasks:

- assess the physical condition of patients to diagnose problems and plan appropriate treatment
- use a range of techniques to strengthen and stretch muscles and joints to improve patient mobility (such as massage, hydrotherapy, breathing and relaxation techniques)
- perform spinal and peripheral joint mobilisation and manipulation
- use equipment such as heat packs, exercise equipment, ice packs, ultrasound and electrotherapy to ease pain, reduce swelling and improve range of movement
- re-train patients to walk or to use devices such as walking frames, splints, crutches and wheelchairs
- educate patients, their families and the community to prevent injury and disability and to lead healthy lifestyles
- plan and implement community fitness programs
- maintain patient records.

Further into their career, physiotherapists can choose to practice in specific areas such as muscle and skeletal conditions, women's health, aged care, chest conditions, occupational health and safety, sports injuries, babies and young children, problems of the nervous system and spinal injuries, administration, education or research.

Physiotherapists may work as part of a health care team, independently in private practice, within the school system or as industry consultants.

#### Personal Requirements

- patience
- genuine interest in people
- good health
- physically fit
- problem-solving skills
- good communication skills.

#### Education and Training

To become a physiotherapist you usually have to study physiotherapy at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, physics, mathematics and chemistry are normally required. You may be required to undertake the Undergraduate Medicine and Health Sciences Admission Test (UMAT). Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

*Charles Sturt University - Albury-Wodonga Campus:*

Bachelor of Physiotherapy, 4 years full time

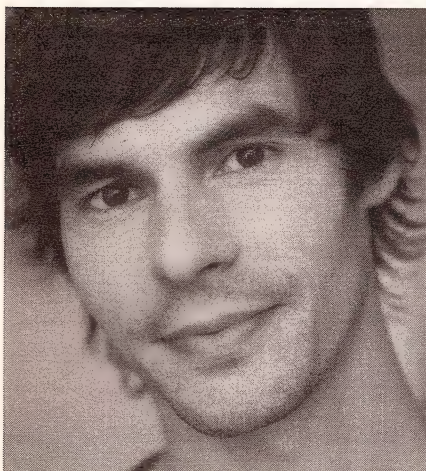
*Monash University - Peninsula Campus:*

Bachelor of Physiotherapy, 4 years full time

#### Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including physiotherapy. Boards in each State and Territory implement these national standards and policies. For full details, see the Physiotherapy Board of Australia's website.





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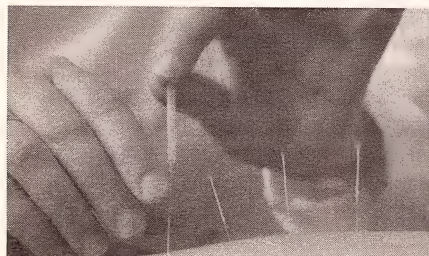
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It is a legal requirement for graduates to be registered with the Physiotherapy Board of Australia before being able to practice as a physiotherapist in any state or territory in Australia.

#### Employment Opportunities

Physiotherapists work in a variety of settings including hospitals, community health centres, centres for physically disabled people, mental health services, rehabilitation centres, sports clinics and fitness centres, government departments and universities. Physiotherapists can also work in managerial and research positions.

Continued emphasis on sport and fitness, occupational health and safety, and aged care has increased the demand for physiotherapists. Opportunities also exist to become self-employed in private practice or to work part time.

#### For Further Information

- Australian Physiotherapy Association (National Office)  
☎ (03) 9092 0888 ✉ [national.office@physiotherapy.asn.au](mailto:national.office@physiotherapy.asn.au)  
🌐 [www.physiotherapy.asn.au](http://www.physiotherapy.asn.au)
- CRS Australia ☎ 1800 277 277 🌐 [www.crsaustalia.gov.au](http://www.crsaustalia.gov.au)
- Physiotherapy Board of Australia ☎ 1300 419 495  
🌐 [www.physiotherapyboard.gov.au](http://www.physiotherapyboard.gov.au)

#### Related Jobs

Chiropractor (p 114); Massage Therapist (p 258); Medical Practitioner (p 268); Midwife (p 274); Nurse - Registered (p 296); Occupational Therapist (p 299); Osteopath (p 305); Podiatrist (p 325); Prosthetist/Orthotist (p 337); Rehabilitation Counsellor (p 352); Speech Pathologist (p 377); Sports Scientist (p 380); Teacher - Physical Education (p 395).



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## Picture Framer

Picture framers make frames of all types and sizes and mount and display decorative items such as paintings, prints, etchings, tapestries and photographs.

Picture framers may perform the following tasks:

- talk to customers about the style, size, materials and cost of their framing requirements
- help customers understand colours, design and layout of frames
- assess the value and physical condition of artwork to decide the level of framing required
- order the materials needed and keep accounts
- cut frame pieces to size and prepare joints for corners
- join the frame with nails, glue or dowels, and sand lightly
- mould and glue ornamental parts into the frame if required
- varnish, stain or paint the frame
- mount backing materials and the item for framing
- cut glass to size
- fit items to ready-made frames
- refer to specialists such as conservators to assess the physical condition of artwork
- assist in the preservation of historic artwork.

Picture framers use a variety of tools including power tools, saws and pneumatic staplers and nailers. Specialist framers use the crafts of wood machining, wood finishing, French-polishing, cabinetmaking, wood carving and gilding.

#### Personal Requirements

- enjoy practical and manual activities
- good interpersonal skills
- interest in the history and value of artwork
- aptitude for design
- appreciation of changing trends in colours and materials
- able to work neatly and accurately
- good hand-eye coordination.

#### Education and Training

You can work as a picture framer without formal qualifications. You will probably get some informal training on the job.

You can also become a picture framer through an apprenticeship in Picture Framing. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Furnishing Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Picture framers are generally employed in small workshops and retail outlets.

Some are self-employed or work in partnerships. However, self-employment opportunities are usually limited to experienced people who have regular customers and enough money to invest in the necessary tools and equipment.

#### For Further Information

- Australian Industry Group 🌐 [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)
- Furnishing Industry Association of Australia Ltd ☎ (02) 4340 2000  
✉ [admin@fiaa.com.au](mailto:admin@fiaa.com.au) 🌐 [www.fiaa.com.au](http://www.fiaa.com.au)



- Picture Framers Guild of Australia Inc ☎ 0419 500 609 (mobile call charges apply) ✉ admin@pfga.org.au 🌐 www.pfga.org.au

#### Related Jobs

Artist (p 75); Cabinetmaker (p 99); Conservator (p 127); Craftsperson (p 135); Interior Decorator (p 233).

## Pilot

Pilots fly various types of aircraft including light planes, helicopters or airline aircraft, depending on the aircraft type they are approved to fly.

They may transport passengers, mail and freight within Australia, to or from overseas locations on scheduled airline and unscheduled charter services, or provide other aviation services as required.

Pilots may perform the following tasks:

- prepare flight plans based on weather forecasts and operational information
- make sure aircraft are properly loaded for a safe and efficient flight
- check fuel requirements and fuel quantities prior to flight
- check on maintenance status of aircraft prior to flight
- conduct checks of flight controls, instruments and aircraft engines
- fly aircraft according to established operating and safety procedures under a range of flight conditions, including extreme weather and emergency situations
- make sure passengers are correctly informed of emergency procedures and maintain care of passengers
- provide passengers with information and weather details
- take bookings, load aircraft and generally assist in the promotion and running of the company.

Pilots' duties vary according to the size and nature of the company.

#### Specialisations

**Aeromedical Pilot** - works for organisations such as the Royal Flying Doctor Service or search and rescue helicopter services. They may have some type of medical or rescue training but this is not a requirement.

**Agricultural Pilot** - uses planes for crop dusting and other agricultural work, flying at low levels in rural communities.

**Airline Pilot** - holds particular certificates which allow them to command a multi-crew airline aircraft to transport passengers and cargo. They can also carry out all the roles of a Commercial Pilot for their appropriate licence status.

**Commercial Pilot** - flies in command of single pilot aircraft carrying out charter, flying instruction and other types of aerial work, such as surveys and coastal aerial surveillance in the general aviation (light aircraft) sector of the industry. They can also act as the co-pilot of large airline aircraft if they hold both co-pilot endorsement and an instrument rating.

**Helicopter Pilot** - flies helicopters for various purposes ranging from joy rides to emergency rescue operations. With additional licenses and experiences opportunities also exist to fly larger twin-engine helicopters, which are commonly used in offshore mining operations.

**Flying Instructor** - teaches others so they may obtain a pilots licence, from private through to commercial levels.

**Military Pilot** - is trained to operate a variety of combat and support aircraft. For more information on military pilots and defence force careers, see the entries for Air Force Officer, Army Officer or Navy Officer.

#### Personal Requirements

- good eyesight (may be corrected)
- able to make accurate judgments quickly and remain calm in an emergency
- able to use information from various sources and make decisions
- able to speak, write and understand English.

#### Education and Training

To become a pilot you have to complete a number of licences involving practical and theoretical training. The practical component is undertaken with a qualified pilot/instructor. Flight training is available from private flight training schools. It is also available at certificate and diploma levels through Registered Training Organisations, including TAFE. However, entry to this occupation may be improved if you have a degree in aviation.

Entry to the certificate and diploma courses below usually requires Year 12. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Applicants may also be required to attend a selection interview and obtain a Class 1 Civil Aviation Safety Authority (CASA) medical certificate. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

You can check the Civil Aviation Safety Authority website to find private flying schools in Victoria.

#### Certificate Courses

*Swinburne University of Technology (TAFE Division) - Hawthorn Campus:*

Certificate IV in Aviation (Commercial Pilot Aeroplane Licence)

#### Diploma Courses

*RMIT University - Point Cook Airfield:*

Diploma of Air Transport (Airline Pilot)

*Swinburne University of Technology (TAFE Division) - Hawthorn Campus:*

Diploma of Aviation (Instrument Flight Operations)

Advanced Diploma of Technology (Aviation)

#### Degree Courses

*RMIT University - City Campus:*

Bachelor of Applied Science (Aviation), 3 years full time

*Swinburne University of Technology - Hawthorn Campus:*

Bachelor of Aviation, 3 years full time or equivalent

#### Additional Information

The precise requirements (aeronautical experience and examinations/tests, etc.) for the issue of pilot licences are contained in the CASA regulations which can be viewed at any licensed flying school or through the CASA website.

People considering a career as a pilot need to be aware that the flying training costs can be about \$15 000 for a private pilot licence, \$35-42 000 for a commercial pilot licence, an additional \$10-15 000 for a command instrument rating including a night VFR, and an additional \$10-15 000 to become an instructor. It is recommended that, before starting any training, you should contact numerous flight schools to determine which one offers the best course for the level of flying you wish to obtain. Also, some companies use return of service clauses to recover training costs in the event of an early termination of enrolment, so it is best to ensure that the course is suited to your training needs.

Airlines recruit experienced commercial pilots who meet the minimum requirements direct from the general aviation industry, usually either fully qualified pilots with an Air Transport Pilot Licence (ATPL) or a



Commercial Pilot with ATPL theory subjects passed. If selected, pilots may spend three to six months in ground and flight training before completing a line check and commencing duties. Also, all persons working in the airline industry must satisfy security clearance requirements. Check with the relevant airline for details.

#### Employment Opportunities

There is considerable competition for all types of employment for pilots, particularly with the commercial airlines. Promotions depend on experience and the licences held. To obtain employment, pilots may need to move to a major city or regional centre, or be prepared to be away from home for extended periods.

Major employers include commercial airline companies, agricultural services, aerial surveying services, aeromedical services such as the Royal Flying Doctor Service and government agencies such as the police, forests and national parks, and customs coastwatch.

#### For Further Information

- Qantas Airways Ltd ☎ <http://careers.qantas.com.au>
- Australian Federation of Air Pilots ☎ (03) 9928 5737  
✉ [admin@afap.org.au](mailto:admin@afap.org.au) ☎ [www.afap.org.au](http://www.afap.org.au)
- Civil Aviation Safety Authority ☎ 13 17 57 (FREECALL)  
☎ [www.casa.gov.au](http://www.casa.gov.au)

#### Related Jobs

Air Force Officer (p 60); Air Traffic Controller (p 62); Aircraft Maintenance Engineer (p 63).



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## Plasterer

Also known as Wall and Ceiling Fixer.

Plasterers make, apply and fix the internal linings of commercial and domestic buildings, including decorative and protective coverings made of plaster, cement or similar materials.

Plasterers may perform the following tasks:

- measure room walls, work out plasterboard layout and install insulation and moisture barriers
- measure and mark cutting lines on plasterboard
- cut plasterboard, lift and position panels, and nail, screw or glue them to walls, ceilings or wooden strips called battens
- prepare corner beading panel mouldings, ceiling centres and other plaster fittings
- cover joins and nail holes with wet plaster or sealing compounds and smooth them using wet brushes and sand paper
- fix precast cornices and panel mouldings, ceiling centres and other plaster fittings
- apply finishing coats of plaster to give a smooth finish or decorative texture

- install fire-rated wall barriers
- spray fibrous materials over surfaces to be covered
- install acoustic walls and treatments
- render exterior walls and moulds
- make fibrous plaster moulds in factories.

Plasterers usually work in dusty conditions. They may work alone or in teams of two or three, indoors and outdoors. They may have contact with the public.

#### Specialisations

**Fixer (Plaster)** - installs plasterboard sheets and cornices in buildings.

**Modellers Hand (Plaster)** - makes plaster moulds.

**Sheet Hand (Plaster)** - makes fibrous enrichments.

#### Personal Requirements

- enjoy practical work
- good hand-eye coordination
- able to work at heights
- able to work neatly and accurately
- able to read, interpret and work from plans.

#### Education and Training

To become a plasterer you usually have to complete an apprenticeship in Wall and Ceiling Lining or Solid Plastering. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Industry standards require plasterers who work at heights to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To gain a licence to Perform High Risk Work, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, and keep an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence for performing high risk work you must be at least 18 years of age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and Services Integrated Framework that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Plasterers are employed by plastering subcontracting firms, building and construction companies, and businesses that manufacture plaster products. Many plasterers are self-employed and work on a subcontract basis. The demand for plasterers depends on activity in the building industry, in particular the housing sector.

Trade qualifications are sought after, but are not essential. Demand is subject to changes in building activity. Qualified tradespeople are less likely to be affected by downturns in demand.



#### For Further Information

- Association of Wall and Ceiling Industries ☎ (02) 9806 9541  
🌐 [www.awci.org.au](http://www.awci.org.au)
- Housing Industry Association (VIC) ☎ (03) 9280 8200  
✉ [vic\\_enquiry@hia.com.au](mailto:vic_enquiry@hia.com.au) 🌐 <http://hia.com.au>
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) 🌐 [www.mbav.com.au](http://www.mbav.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

#### Related Jobs

Bricklayer (p 93); Painter and Decorator (p 306); Tiler - Wall and Floor (p 406).

## Plastics and Composites Processor

Also known as Fibreglass Worker, Gun Hand, Laminator and Plastic Processing Machine Operator.

Plastics and composites processors handle machinery which manufactures or finishes plastic or composite products by injection moulding, extrusion, blow moulding, hand fabrication, hand lay-up, calendering and other processes.

Plastics and composites processors may perform the following tasks:

- check machine settings and safety devices before their operation, set controls, start machines and load materials
- regulate the machine temperatures, pressures and speeds of operation of manually operated and semi-automatic equipment
- extract mouldings and extrusions, cut off waste material, and trim and finish moulded components in accordance with machine cycle and quality specifications
- fix, assemble or install moulded-in components
- form, fabricate or lay up sheet and thermosetting plastics materials
- control feeding devices for wire and cable coating
- control blending, compounding and drying equipment
- maintain production and quality assessment records
- coat moulds with fibreglass (a mixture of plastic resin, glass fibres and chemical hardeners), either by hand or by using special spray guns
- laminate fibreglass by smoothing it with rollers and brushes to remove air pockets before the mixture hardens
- use honeycomb, balsa or foam plastic when stiffening or flotation of a product is required, and to reduce its weight
- fit together various parts of the product by hand, using fibreglass, tape or putties as bonding agents
- shape and sand products before assembling.

Plastics and composites processors may work in one of the following industry areas: injection moulding, pipe and profile extrusion, blow moulding of plastic bottles, film and sheet extrusion, thermoforming and fabrication, reinforced plastics (fibreglass) and composites, vinyl calendering, laminating, compounding and reclamation, foam processing and cable manufacturing.

Plastics and composites processors may have to wear special safety equipment such as masks, gloves and protective clothing, especially when using spray guns. Some of the tasks involved in composites production may require working in confined spaces.

Plastics and composites processors may be required to work shifts.

#### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- physically fit

- good at technical activities
- able to work as part of a team
- enjoy working with machinery.

#### Education and Training

You can work as a plastics and composites processor without formal qualifications. You will probably get some informal training on the job.

You can also become a plastics and composites processor through a traineeship in Polymer Processing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Plastics, Rubber and Cabling Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Plastics and composites are increasingly replacing more traditional materials like steel and wood in many everyday products such as motor vehicles, aircraft, bicycles, furniture and household appliances. People with design flair and who are good at solving practical problems will be in particular demand.

Many plastics and composites processors are employed in small to medium sized manufacturing companies, making products or components for the aerospace, marine, water and recycling industries. Experienced workers sometimes set up their own companies and others may work on a subcontract basis doing a broad range of composites work. Work on products such as boats, surfboards and swimming pools can be seasonal.

#### For Further Information

- Australian Industry Group 🌐 [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Composites Australia Inc ☎ (03) 9866 5586 or 1300 654 254 (FREECALL) ✉ [info@compositesaustralia.com.au](mailto:info@compositesaustralia.com.au)  
🌐 [www.compositesaustralia.com.au](http://www.compositesaustralia.com.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Chemical Plant Operator (p 111); Petroleum and Gas Plant Operator (p 314); Recycler (p 349); Rubber Processor (p 357).

## Plumber

Plumbers lay out, test and maintain pipes, fixtures, metal roofing, fittings, gas meters and regulators.

Plumbers may perform the following tasks:

- prepare and/or study plans and specifications to work out the layout of plumbing systems and materials needed
- find and mark positions for connections, then cut holes through walls and floors to accommodate pipes, measure pipes and mark cutting or bending lines
- cut, thread and bend pipes, assemble and install piping, valves and fittings, join pipe sections and secure pipes
- test lines as required by local plumbing regulations
- install equipment such as boilers, pumps, heating and cooling systems, gas appliances, water tanks, water heaters, solar water heating systems, fixtures such as toilets, wash basins and industrial processing units
- maintain and repair plumbing systems.



### Specialisations

**Drainer** - installs, maintains and repairs pipes in storm water or sewerage systems and drains, and installs septic tanks, holding wells, sillage pits and absorption tracks.

**Gasfitter** - installs, maintains, tests and repairs gas lines, meters, regulators, hot water systems and appliances.

**Heating and Ventilation Plumber** - installs and services heating and cooling systems.

**Irrigation Installer** - plans, designs and installs large watering systems for such environments as golf courses and parks.

**Roofing Plumber** - installs and fixes metal roofs, flashings, gutters, downpipes, rainwater products and other accessories on residential, industrial and commercial buildings. The work conducted by roofing plumbers includes working outdoors, in a team environment and safely at heights.

**Sprinkler Fitter** - installs and maintains fire protection systems.

### Personal Requirements

- enjoy practical work
- good hand-eye coordination
- able to work independently
- able to work at heights and in various weather conditions
- physically fit
- good interpersonal skills
- good mobility.

### Education and Training

To become a plumber you usually have to complete an apprenticeship in Plumbing. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

In Victoria, plumbers must hold a licence issued by the Plumbing Industry Commission.

Post-trade studies from the Construction, Plumbing and Services Integrated Framework may be required to fulfil registration requirements for more specialised areas of work, such as gasfitting, draining, hydraulics and fire protection.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

### Employment Opportunities

The industry is dominated by small firms and self-employed tradespeople. Plumbers may also work for federal or state and territory government departments concerned with public works. Plumbers are involved in everything from domestic maintenance to high-rise construction.

Competition is strong for available apprenticeship positions. With further training and experience, plumbers can become technical and sales representatives, building supervisors, building and construction managers, plumbing inspectors, hydraulics consultants, technical teachers, estimators, building contract administrators, purchasing officers or start their own business.

Demand is linked with activity in the construction industry. However, unlike other building trades, downturns in building activity have less effect on plumbers because of the work available in renovation and maintenance. Demand is also more stable because, by law, certain jobs must be performed by plumbers.

### For Further Information

- Master Plumbers' and Mechanical Services Association of Australia (MPMSAA) ☎ (03) 9329 9622  
🌐 [www.plumbingcareer.com.au](http://www.plumbingcareer.com.au)
- Plumbing Trades Employees Union ☎ (03) 9662 3388  
✉ [admin@pteu.asn.au](mailto:admin@pteu.asn.au) 🌐 [www.plumbers.cepu.asn.au](http://www.plumbers.cepu.asn.au)
- Housing Industry Association (VIC) ☎ (03) 9280 8200  
✉ [vic\\_enquiry@hia.com.au](mailto:vic_enquiry@hia.com.au) 🌐 <http://hia.com.au>
- Air Conditioning and Mechanical Contractors' Association of Australia ☎ (03) 8831 2800 ✉ [natamca@amca.com.au](mailto:natamca@amca.com.au)  
🌐 [www.amca.com.au](http://www.amca.com.au)

### Related Jobs

Army Soldier - Technician (p 74); Bricklayer (p 93); Carpenter (p 105); Joiner (p 238); Refrigeration and Airconditioning Draftsperson (p 350); Roofer (p 356).



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## Podiatrist

Podiatrists look after the health of people's feet by diagnosing, treating and preventing foot abnormalities, and by educating the public about good foot health.

Podiatrists may perform the following tasks:

- diagnose, treat or provide advice on foot disorders
- give advice on foot health and prevention of foot disorders
- treat deformities such as flat feet and foot imbalance by using corrective devices such as orthoses
- examine patients' feet to diagnose any disorders or infections and decide on an appropriate treatment
- work with patients suffering from diabetes
- perform surgical procedures on the foot
- treat abnormalities of bones, joints, skin and nails such as bunions, toe deformities, ingrown toenails, corns, warts and other infections
- recommend footwear for specific foot conditions
- prescribe orthotic devices for protection and correction of a wide range of foot and leg irregularities.

Podiatrists may develop a special interest in dealing with particular client groups such as children, the aged or sports people. They may also work in a particular area such as occupational health, or with general medical conditions that result in problems of the feet and legs.

Podiatrists work in public hospitals, community health centres, nursing homes and private practice.

### Personal Requirements

- desire to work with people on a one-to-one basis
- independent and highly motivated
- enjoy health care
- good communication skills
- good with hands.



### Education and Training

To become a podiatrist you usually have to study podiatry at university. To get into the course below you usually need to gain your VCE. Contact the universities for more information as requirements may change.

#### Degree Courses

*Charles Sturt University - Albury-Wodonga Campus:*

Bachelor of Podiatry, 4 years full time

#### Additional Information

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including podiatry. For full details, see the Podiatry Board of Australia's website.

It is a legal requirement for graduates to be registered with the Podiatry Board of Australia before being able to practice as a podiatrist in any state or territory in Australia.

#### Employment Opportunities

Most podiatrists work in private practice as a sole proprietor, partner or employee. An increasing number of podiatrists are employed in community health centres, hospitals, rehabilitation centres, specialist high-risk clinics and sports medicine clinics. A small number obtain teaching and research positions.

Podiatrists may also work in aged care services, such as day care centres for the elderly, nursing homes and hostels, where they visit to treat residents. Many podiatrists will also provide treatment in the patient's home.

#### For Further Information

- Podiatry Board of Australia ☎ 1300 419 495  
🌐 [www.podiatryboard.gov.au](http://www.podiatryboard.gov.au)
- Australasian Podiatry Council ☎ (03) 9416 3111  
🌐 [www.apodc.com.au](http://www.apodc.com.au)
- Australian Podiatry Association (VIC) ☎ (03) 9286 1885  
✉ [apoda@podiatryvic.com.au](mailto:apoda@podiatryvic.com.au) 🌐 [www.podiatryvic.com.au](http://www.podiatryvic.com.au)

#### Related Jobs

Chiropractor (p 114); Massage Therapist (p 258); Osteopath (p 305); Physiotherapist (p 319).

## Police Officer - Australian Federal Police

Also known as ACT Police Officer and Federal Agent.

Police officers working for the Australian Federal Police (AFP) are responsible for policing federal law in all states and territories, and for community policing in the ACT and Australia's external territories.

The AFP, with its headquarters located in Canberra, is Australia's international law enforcement and policing agency. It is the chief source of advice to the Australian Government on policing issues, enforces Commonwealth criminal law and protects Commonwealth and national interests.

Australian Federal Police officers may perform the following tasks:

- investigate and prosecute offences committed against the Commonwealth in areas such as organised, corporate and computer crime; environmental offences; drug trafficking; fraud; counterfeiting and terrorism
- confiscate proceeds of crime when an offender is convicted
- carry out VIP and diplomatic protection duties as directed
- protect police witnesses and investigate the unlawful disclosure of government information and/or official corruption
- work in joint operations with state and territory police
- liaise with other police forces and crime prevention institutions to combat international crime

- contribute to United Nations activities such as peacekeeping and international aid programs
- undertake clerical and administrative duties.

Australian Federal Police officers do shift work and their duties vary from team to team. They are required to serve anywhere in Australia, or in the Australian territories of Norfolk Island, Christmas Island, the Cocos (Keeling) Islands and Jervis Bay, and be willing to move with the job depending on operational requirements.

#### Personal Requirements

- of sound character
- at least 18 years of age
- a full, unrestricted manual vehicle drivers licence
- able to satisfy medical and fitness requirements
- Australian citizenship.

#### Education and Training

To become a police officer (AFP) you usually have to gain your VCE, or complete Year 10 plus a trade certificate. Tertiary qualifications may add to your competitiveness and, wherever possible, the AFP seeks to recruit graduates from a wide range of disciplines, not limited to law, justice or criminology studies.

To get into degree courses you usually need to gain your VCE. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

To join the AFP, applicants must pass aptitude, medical and psychometric tests, as well as security checks, a fitness test and a selection assessment.

Successful applicants complete 24 weeks training at the AFP College in Barton, ACT. Recruits graduate from the AFP College with a Diploma in Public Safety (Policing).

#### Employment Opportunities

Appointment to the AFP is based on merit, and members have the opportunity to seek employment in all states and territories of Australia. Overseas postings are also available.

Recruits may be employed for duties as plain-clothed Federal Agents, or as uniformed officers in community policing in the ACT.

In addition to performing a variety of duties, recruits have the opportunity to gain experience in specialised policing roles (both uniformed and plain-clothed), as well as the chance to collaborate with national and international law enforcement agencies.

Entry is highly competitive. Job opportunities depend on the level of government funding and technological change in areas such as communication, computer technology, surveillance equipment, data collection and forensic services.

The AFP is an equal opportunity employer and has an Indigenous recruitment and career development strategy.

#### For Further Information

- AFP Recruitment ☎ (02) 6131 5555  
✉ [afprecruitment@afp.gov.au](mailto:afprecruitment@afp.gov.au) 🌐 [www.afp.gov.au](http://www.afp.gov.au)

#### Related Jobs

Air Force General Entrant (p 59); Air Force Officer (p 60); Army Officer (p 73); Army Soldier (p 74); Correctional Officer (p 132); Customs and Border Protection Officer (p 138); Navy Officer (p 291); Navy Sailor (p 292); Police Officer - State (p 327); Private Investigator (p 332); Probation and Parole Officer (p 333); Public Servant - Australian Public Service (p 340); Security Officer (p 364).



## Police Officer - State

Police officers protect the community in relation to crime and disorder by providing services to uphold the law, protect life and property, preserve the peace, prevent crime, detect and apprehend offenders, and help those in need of assistance.

Police officers may perform the following tasks:

- promote crime prevention and undertake community policing activities to improve the quality of community life
- patrol assigned areas on foot or in vehicles to check security of property and watch for unusual activity
- apprehend law breakers
- investigate criminal offences and question suspicious people about their activities
- gather information about crimes and accidents by talking to victims and witnesses and taking notes and statements in writing
- direct and re-route traffic at congested areas
- respond to citizens' complaints and attend scenes of disturbances and reported illegal activities
- guard prisoners
- detain and search suspects for weapons, stolen goods or drugs
- work with ambulance, firefighting and defence force personnel to control emergency situations such as floods, bomb threats and chemical spills
- assist injured and distressed people and search for missing or lost people
- carry out routine clerical work
- issue infringement notices for traffic offences
- attend special events such as football matches and control crowds where necessary
- give evidence in court from previously prepared briefs and notes
- undertake random breath tests of drivers to detect those driving under the influence of alcohol or drugs
- secure crime and accident scenes, and locate or obtain evidence for analysis
- give sympathetic, constructive and reassuring assistance and feedback to victims of crime.

All newly appointed police officers are initially required to perform station and patrol duties.

After gaining experience, police officers may seek entry to specialist areas such as criminal investigation (detective work), radio communications, prosecutions, juvenile aid, accident investigation, water police, dog handling, traffic control, the mounted unit, education and training, and human resource management.

Police officers are required to work shifts including weekends and public holidays and serve in any part of the state or territory.

### Personal Requirements

- enjoy helping people
- able to stay calm in difficult situations
- physically fit
- tolerant of people from all backgrounds and cultures

- honest and reliable
- willing to accept responsibility
- socially mature with a degree of mental toughness
- able to analyse and solve problems
- have an acceptable traffic/criminal record
- Australian citizenship or permanent residency
- able to satisfy medical requirements.

### Education and Training

To become a Victorian police officer you usually have to gain your VCE. However, entry to this occupation may be improved if you have tertiary qualifications. Relevant courses are widely available at most universities and TAFE institutes throughout Australia. To get into these courses you usually need to gain your VCE. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Applicants must satisfy character and fitness requirements, pass an education examination conducted by an approved TAFE institute and undergo a medical examination.

Applicants who satisfy the entry requirements must then successfully complete four Entry Testing Phases. These consist of agility testing, psychological screening, a medical examination and a selection panel interview.

Successful applicants then undertake a 23-week initial recruit training program at the Police Academy, Glen Waverley, followed by a two-year probationary training program.

### Employment Opportunities

Victoria Police recruit throughout the year. Entrance requirements are stringent and competition for selection is strong.

Victoria Police also offers specialist opportunities in many areas of police work. Promotion to specialist areas in Victoria Police is possible after four years of service and is based on merit.

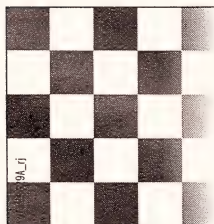
Victoria Police encourages applications from Aboriginal and Torres Strait Islander people, women, and people from non-English-speaking backgrounds.

### For Further Information

- Victoria Police Recruitment Services Branch, Victoria Police Centre ☎ 13 20 01
- ✉ [hrdd.recruittingservices@police.vic.gov.au](mailto:hrdd.recruittingservices@police.vic.gov.au)
- 🌐 [www.police.vic.gov.au](http://www.police.vic.gov.au)

### Related Jobs

Air Force General Entrant (p 59); Air Force Officer (p 60); Army Officer (p 73); Army Soldier (p 74); Correctional Officer (p 132); Criminologist (p 137); Customs and Border Protection Officer (p 138); Fisheries Officer (p 184); Indigenous Community Liaison Officer (p 222); Navy Officer (p 291); Navy Sailor (p 292); Police Officer - Australian Federal Police (p 326); Private Investigator (p 332); Probation and Parole Officer (p 333); Security Officer (p 364); Transport Services Officer (p 418).



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## Political Scientist

Political scientists study the theory, origin, development, inter-relationships and functioning of political institutions and movements. They also study individual, group and mass political behaviour and their relationship to society and the economy.

Political scientists may perform the following tasks:

- research fields such as political philosophy, the theory and practice of political systems and institutions, public administration, political party systems, the development of public opinion, international relations, and relations between government and business
- assemble research data by consulting and studying the works of others and observing the workings of contemporary political institutions and practices
- present findings and conclusions in a form suitable for publication or use by government, political parties, international institutions and non-government organisations
- plan and direct public opinion surveys and interpret results
- write articles for daily papers and journals to inform the public
- present political information on radio and television.

### Personal Requirements

- aptitude for research and analysis
- good oral and written communication skills
- interested in current affairs and politics.

### Education and Training

To become a political scientist you usually have to study arts at university with a major in politics or political science. To get into these courses you usually need to gain your VCE with English. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Most universities in Victoria offer degrees with a major in political studies, 3 years full time or equivalent. Contact your preferred institution for further details.

### Employment Opportunities

Political scientists are employed by educational institutions as teachers or lecturers and as consultants, policy analysts or researchers by government departments. They are also employed by the media as journalists, political analysts and commentators.

In the foreign service and other institutions concerned with the issues of aid, development, the environment, human rights and education, political scientists analyse the political implications of proposed strategies at both the domestic and international level.

### For Further Information

- Australian Political Studies Association ☎ (02) 6125 2257  
✉ [Mary.Hapel@anu.edu.au](mailto:Mary.Hapel@anu.edu.au) 🌐 [www.auspsa.org.au](http://www.auspsa.org.au)

### Related Jobs

Economist (p 154); Historian (p 212); Industrial Relations Officer (p 226); Parliamentarian (p 310); Research Officer (p 353); Sociologist (p 374); Trade Union Official (p 411).

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## Porter - Hotel/Motel

Also known as Doorperson, Luggage Person and Luggage Porter.

Porters carry luggage for guests in hotels and motels, and passengers in transport terminals. They also show guests to their rooms, berths or cabins, and provide other guest services.

Porters may perform the following tasks:

- take baggage, tag it and give identification slips to guests or passengers
- load or unload luggage and take it to the receiving area
- carry luggage and show incoming guests to rooms
- explain details of hotel room services and facilities to guests as they arrive
- carry the luggage of departing guests to cars, buses or taxis
- talk with transport carriers to make travel arrangements and retrieve lost luggage
- page guests and run errands
- park and retrieve guests' vehicles.

Porters generally work shifts and have a high level of contact with the public, often working with large inbound tour groups. Employers usually provide uniforms, along with meals when on duty.

### Specialisation

**Concierge** - organises and books tours, transport and entertainment for guests, and provides them with information on the local area. A concierge also assists guests and staff with safety and emergency procedures.

### Personal Requirements

- enjoy working with people
- well-presented, alert and perceptive
- good interpersonal skills
- physically fit
- able to communicate effectively in English
- good knowledge of the local area.

### Education and Training

You can work as a porter without formal qualifications. You will probably get some informal training on the job.

You can also become a porter through a traineeship in Hospitality. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

The ability to speak a second language may be an advantage. A current drivers licence is often required.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Porters are mainly employed in the larger international standard hotels.

There are opportunities in the tourism and hospitality industries for further training, and experienced porters may eventually be promoted to duty managers or front office managers.

### For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ [aha@aha.org.au](mailto:aha@aha.org.au) 🌐 [www.aha.org.au](http://www.aha.org.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)



- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au

#### Related Jobs

Airline Baggage and Freight Handler (p 64); Hotel and Motel Front Office Attendant (p 218); Receptionist (p 346); Ship's Catering Attendant (p 369); Transport Services Officer (p 418); Usher (p 424).

## Postal Employee

Also known as Postal Officer.

Postal officers employed by Australia Post sort and deliver mail and parcels and undertake clerical and retail sales functions.

The major work classifications for Australia Post employees are grouped into the broad categories of sorting and despatching, delivery and service.

Postal employees may perform a range of tasks including:

- sorting mail for delivery rounds
- delivering mail on foot, by bicycle or motorised transport over allocated delivery rounds
- loading and unloading mail conveyances and internal mail handling equipment
- assisting with the receipt of inward mail; the checking of wrongly addressed, missorted, undelivered and redirected mail; and the processing of freepost and underpaid mail
- delivering express courier items and parcels
- assisting in preparing statistical returns, mail advices, statements and other clerical tasks
- assisting in the processing of outward mail.

#### Specialisations

**Postal Sorting Officer** - works at mail centres or mail exchanges. They may receive, sort and despatch mail and parcels to mail delivery and business centres and post offices. They may lift mail bags, operate mechanical and automatic mail processing equipment and maintain postal records.

**Parcel Post Officer** - works at parcel centres receiving, sorting and despatching parcels to mail delivery and business centres, and post offices.

**Postal Delivery Officer** - delivers mail to customers using a motorcycle or bicycle, or on foot.

**Retail Customer Services Representative (Postal)** - works at retail outlets and sells items such as postage stamps, money orders, communication products (such as mobile phones, printers and faxes). They may complete bill payment transactions and provide general customer service as well as agency services for the Commonwealth Bank and Telstra. They may also prepare shop displays, conduct identification checks, carry out clerical maintenance of records and statistics, calculate staff pay and allowances, and process mail.

**Postal Transport Officer** - operates primarily in the general transport fleet. They may collect, transport and deliver mail between post offices, mail delivery and business centres, airports and rail terminals. They clear street post boxes, undertake long-distance haulage of bulk mail and pick up and deliver articles in the metropolitan area.

Parcel post officers and most mail officers and postal transport officers work in the metropolitan area. They may be required to work shifts and also on weekends. Postal services officers, postal delivery officers and postal sorting officers may work in metropolitan or country areas. Postal sorting officers must be available to work night shift and postal

delivery officers are required to work in all weather conditions. All postal officers are required to wear uniforms. Some positions may require standing for up to 8 hours a day.

#### Personal Requirements

- good communication skills
- self-motivated and reliable
- able to work as part of a team.

#### Education and Training

You can work as a postal employee without formal qualifications, however, a minimum of Year 11 is preferred. Applicants may be required to sit a selection test, which focuses on literacy and numeracy.

Successful applicants participate in a training course provided by Australia Post at selected metropolitan post offices/retail shops or other facilities, depending upon their job specialisation.

Applicants for positions which require driving may be given a practical driving and traffic code test.

#### Additional Information

Postal delivery officers, postal transport officers and some postal sorting officers who drive motor vehicles must have the appropriate class of drivers licence. To be a motorcycle postal delivery officer you must possess an unrestricted motorcycle licence and weigh less than 100 kg.

#### Employment Opportunities

Australia Post operates as a self-funding government business enterprise and is the main employer of postal employees in both city and rural areas. A few postal duties (such as mail services in country areas) may be contracted out to non-government organisations.

For information about application procedures, contact your local post office, mail centre or parcel centre listed under Australia Post in the local telephone directory, or check [www.auspost.com.au/jobsatpost](http://www.auspost.com.au/jobsatpost).

#### For Further Information

- Australia Post (National Head Office) ☎ 13 13 18  
🌐 [www.auspost.com.au](http://www.auspost.com.au)
- Communications, Electrical and Plumbing Union of Australia (CEPU), Communications Division (VIC) ☎ (03) 9600 9100  
✉ [cdptvic@cepu.asn.au](mailto:cdptvic@cepu.asn.au) 🌐 [www.cwuvic.asn.au](http://www.cwuvic.asn.au)

#### Related Jobs

Bank Officer (p 83); Cashier (p 107); Delivery Driver (p 142); Public Servant - Australian Public Service (p 340); Sales Assistant (p 358).

## Power Generation Plant Operator

Power generation plant operators control and operate a range of machinery and instruments used in the electricity supply industry (ESI) for generating electric power. This may involve mechanical, electrical or chemical processes.

Power generation plant operators may perform the following tasks:

- control the flow of fuel to boilers and make sure that the machinery is working properly
- control the flow of water in hydroelectric power stations and ensure that the machinery is working correctly
- operate control instruments to switch off lines or equipment and to connect alternative circuits
- check instruments and switchboards to make sure that all systems are working efficiently, to detect line disturbances and to check the flow of power



- find faults and perform basic repairs in mechanical, electrical and process control equipment and coordinate specialist repairs
- shut down or start up boilers or turbines to decrease or increase power output
- operate power switches for safety of crews and to avoid interruptions during repairs
- undertake safe work procedures to isolate plant machinery and equipment for maintenance and repair
- compile records and reports on equipment performance, instrument readings and switching operations
- clean, lubricate and repair equipment
- control processes and equipment associated with inputs for power generation such as fuel, chemicals and water
- control processes and equipment associated with management of by-products to minimise their environmental impact
- respond to emergencies such as fire and environmental hazards.

Power generation plant operators may specialise as hydroelectric power station operators or power generation turbine room operators.

They work in control rooms, operating a controlling console, and also out in the plant. Shift work is required.

#### Personal Requirements

- logical and thorough approach to work
- able to follow procedures and committed to safe work practices
- good at mechanical and/or electrical activities
- able to accept responsibility and make decisions.

#### Education and Training

To become a power generation plant operator, you usually need to complete a traineeship in ESI Generation. Entry requirements may vary, but employers generally require Year 10, some prefer Year 12. You may also be able to cross over into this occupation from the related occupations of Electrician and Engineering Tradesperson - Mechanical. See the separate profiles for these occupations for entry details.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships and apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Industry standards require power generation plant operators to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To obtain a licence to Perform High Risk Work, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, and keep an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence for performing high risk work you must be at least 18 years of age.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

#### Employment Opportunities

Power generation plant operators work for electricity supply companies in their various power stations. The demand for power generation plant operators is influenced by the growth in demand for power and changing technology. Employers generally seek people with the ability to undertake maintenance and operator tasks. Therefore, they often try to fill power generation plant operator positions with already qualified electrical or mechanical tradespersons.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- AGL ☎ (02) 9921 2999 ☎ [www.agl.com.au](http://www.agl.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) ☎ [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

#### Related Jobs

Electrician (p 160); Engineering Tradesperson - Mechanical (p 165); Machine Operator (Non-metal products) (p 252).

## Primary Products Inspector

Also known as Food Standards Officer and Quarantine Inspector.

Primary products inspectors examine animals, plants and agricultural produce at farms, abattoirs, processing and packing plants, wholesale markets and places of storage or shipment to make sure that they meet export requirements and government standards of hygiene and quality.

Primary products inspectors may perform the following tasks:

- check produce, live animals and crops for disease, insect or chemical residue and other damage, and reject those of substandard quality
- check and grade produce (e.g. meat, fruit, vegetables, milk, grains, sugar cane and fish) during processing, making sure that ingredients used in processing meet government standards of purity and grading
- supervise fumigation of ships and aircraft
- check on the proper disposal of quarantine garbage
- examine imported plants, animals and products (e.g. timber, seeds, dried fruits) and make quarantine arrangements
- make sure that commercial fishing regulations are obeyed
- inspect livestock before and after slaughter to check that they are fit for human consumption
- advise on packing and loading regulations
- advise primary producers on economic aspects of disease eradication, and inform producers and the general public of health implications of diseases and impurities
- appear in court to give evidence in cases involving breaches of the regulations.

Primary products inspectors may be required to work shifts, including weekends.

#### Specialisations

**Meat Inspector** - inspects carcasses and internal organs of animals for disease and makes sure the meat complies with health requirements.

**Australian Quarantine Inspection Service Officer** - prevents pests and diseases from entering the country by examining and treating all incoming and outgoing animals, plants, food, humans and machinery. Quarantine inspectors may work at international airports, seaports, mail exchanges and container depots.

**Sugarcane Analyst/Auditor** - oversees the total operations of sugarcane analysis programs to make sure that they comply with program provisions.

#### Personal Requirements

- normal colour vision
- able to deal confidently with people
- good communication skills
- able to make accurate observations



- good organisational and supervisory skills
- able to handle animals with confidence and patience
- comfortable working with computers.

### Education and Training

To become a meat inspector you have to complete a certificate course in meat processing (specialising in meat safety). To become a sugarcane analyst/auditor you usually have to complete a certificate in laboratory skills. To become a primary products inspector in a field such as dairy or seafood you usually have to complete a diploma in the field of specialisation. To become a quarantine inspector you must first become an employee of the Australian Quarantine and Inspection Service (AQIS). Once employed by AQIS, you will be required to undertake the Certificate III in Government and participate in on-the-job training.

Entry to the certificate courses below usually requires at least Year 11. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a meat inspector through a traineeship in Meat Processing (Meat Safety). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

TAFE Victoria - various locations:

Certificate III in Laboratory Skills

Certificate IV in Laboratory Techniques

### Employment Opportunities

Quarantine inspectors are officers of the Commonwealth Department of Agriculture, Fisheries and Forestry, and work with the Australian Quarantine and Inspection Service (AQIS). They are employed at airports and seaports throughout Australia.

Meat inspectors usually work at establishments where slaughtering or meat processing for export or domestic consumption is performed. Opportunities may arise for meat inspectors with AQIS.

Employment opportunities for sugarcane analysts/auditors are mainly in Queensland, with limited opportunities in NSW and WA. Sugarcane analysts/auditors work in laboratories located within a sugar mill, and most work rostered shifts.

### For Further Information

- Department of Agriculture, Fisheries and Forestry (Commonwealth) ☎ (02) 6272 4702  
✉ [recruitmentservices@DAFF.gov.au](mailto:recruitmentservices@DAFF.gov.au) 🌐 [www.daff.gov.au](http://www.daff.gov.au)
- Department of Primary Industries ☎ 13 61 86  
✉ [customer.service@dpi.vic.gov.au](mailto:customer.service@dpi.vic.gov.au)  
🌐 <http://new.dpi.vic.gov.au>

### Related Jobs

Agricultural Scientist (p 57); Beekeeper (p 86); Butcher (p 99); Environmental Health Officer (p 168); Fisheries Officer (p 184); Food Technologist (p 189); Forester (p 194); Fruit and Vegetable Picker (p 195); Meat Processing Worker (p 262); Natural Resource Manager (p 287); Quality Assurance Inspector (p 342); Seafood Processor (p 363); Shearer (p 367); Smallgoods Maker (p 373); Veterinarian (p 428).

## Printing Hand

Also known as Binding Assistant.

Printing hands operate binding machines, perform manual binding and finishing of books and printed products, and carry out routine print related tasks.

Printing hands may perform the following tasks:

- fold, arrange and fasten printed products by hand or with the aid of machines
- perform hand binding and finishing operations
- carry out quality control checks
- operate specialised machines such as mini binders and automatic carton-folding machines
- assist in setting up folding machines and check folded articles
- assist with the operation and adjustment of machines
- assist with the setting up and monitoring of the operation of automated binding lines
- carry out minor repairs and routine maintenance
- clear waste and clean work areas and machines
- handle and transport materials around the work areas.

Printing hands work with single and multi-colour printing presses. They can be employed in small or large firms.

### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected) and normal colour vision
- able to carry out detailed work
- aptitude for mechanical work
- able to work with computers.

### Education and Training

You can work as a printing hand without formal qualifications. You will probably get some informal training on the job.

You can also become a printing hand through a traineeship in Printing and Graphic Arts (Print Production Support). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Printing and Graphic Arts Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Newspaper and printing firms employ printing hands. Newspaper firms may be located in the city, suburban and country areas. Demand is greatest for people with experience or training in the latest printing technology.

### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Printing Careers 🌐 [www.printingcareers.com.au](http://www.printingcareers.com.au)
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ [info@printnet.com.au](mailto:info@printnet.com.au) 🌐 [www.printnet.com.au](http://www.printnet.com.au)
- EPIC Industry Training Board ☎ (03) 9654 1299  
✉ [epic@epicitb.com](mailto:epic@epicitb.com) 🌐 [www.epicitb.com](http://www.epicitb.com)

### Related Jobs

Binder and Finisher (p 87); Engineering Tradesperson - Mechanical (p 165); Graphic Prepress Tradesperson (p 207); Paper and Pulp Operator (p 307); Printing Machinist (p 332); Screen Printer/Stencil Preparer (p 362); Signmaker (p 372).



## Printing Machinist

Printing machinists set up and operate letterpress, lithographic, flexographic and gravure printing presses. They work on a range of printed products including packaging, stationery, greeting cards, books and newspapers, depending on the printing method used.

**Letterpress printing** is the oldest form of printing, in which ink is applied to a raised surface and transferred directly to paper through pressure. This process is used widely in the production of self-adhesive stickers.

**Offset lithography** is a process of printing from a plate with a flat surface (planographic), and is used mainly in the production of newspapers, magazines, cardboard packaging and books.

**Flexographic printing** uses a raised surface on a flexible rubber or photopolymer plate to produce flexible packaging such as bread bags and confectionary wrappers.

**Gravure printing** uses a recessed cylinder to remove excess ink from the paper's surface, producing an engraved design effect (intaglio). This process is used mainly for long-run packaging work designed for food and other consumables.

Printing machinists may perform the following tasks:

- make printing plates
- fit printing plates or cylinders on presses, mix the inks that go on them and adjust the colour flow to the image
- adjust the paper feeding devices which separate and feed sheets through the machine
- carry out minor repairs and routine maintenance
- set up and operate 'in-line' finishing functions.

With experience and sometimes further training, it is possible to progress to supervisory and management positions.

Printing machinists work in both small businesses and large manufacturing companies, and with single and multi-colour printing presses.

### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected) and normal colour vision
- good hand-eye coordination
- able to carry out detailed work
- mechanical aptitude.

### Education and Training

To become a printing machinist you usually have to complete an apprenticeship in Printing and Graphic Arts (Printing). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Printing machinists work in publishing houses, newspaper production and printing firms, and in both private and government in-house print shops, mainly on offset machines and photocopiers.

Printing presses are increasingly becoming computer controlled, affecting the skill level of the occupation and employment opportunities.

Most printing machinists are employed in NSW, Queensland, Victoria and WA.

### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Printing Careers ☎ [www.printingcareers.com.au](http://www.printingcareers.com.au)
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ [info@printnet.com.au](mailto:info@printnet.com.au) ☎ [www.printnet.com.au](http://www.printnet.com.au)

### Related Jobs

Binder and Finisher (p 87); Engineering Tradesperson - Mechanical (p 165); Graphic Prepress Tradesperson (p 207); Paper and Pulp Operator (p 307); Printing Hand (p 331); Screen Printer/Stencil Preparer (p 362); Signmaker (p 372).

## Private Investigator

Also known as Inquiry Agent, Private Detective and Private Eye.

Private investigators conduct investigations for clients and prepare evidence for court proceedings. They are often involved with matters of insurance, missing persons and character enquiries, and work in private agencies and commercial and industrial organisations.

Investigators may hold licences or perform the duties of a process server or private bailiff.

Private investigators may perform the following tasks:

- conduct surveillance and maintain records
- seek missing persons and locate witnesses
- take videos or photographs for use as evidence
- work undercover in organisations to gather specific information
- gather information for use in legal proceedings
- conduct asset and liability checks
- investigate the theft of private or commercial property
- provide advice on corporate and personal security
- investigate insurance or worker's compensation claims
- prepare reports of investigations
- take statements from witnesses.

Private investigators work indoors in offices and outdoors conducting surveillance. They may need to travel locally or interstate and often work outside office hours.

### Personal Requirements

- good communication skills
- good observation skills
- able to accept responsibility
- a sound character with no criminal or other convictions that would stop you getting a private investigators licence.

### Education and Training

To become a private investigator you usually have to complete a Certificate III, or higher, in Investigative Services in order to meet the requirements for an Individual Private Security Licence from the Victoria Police Licensing Services Division. To attain this licence, you also need to prove that you have no criminal history, and then go before the Private Agents Registry of the Victoria Police to become registered. You must be over 18 years of age.

Entry to the certificate courses below usually requires at least Year 10. Contact the institutions for full details.

### Certificate Courses

*International Security Training Academy:*

Certificate III in Investigative Services

*Kangan Institute of TAFE - Broadmeadows Campus:*

Certificate III in Investigative Services



### Additional Information

People engaged in security work must be appropriately registered and have a National Police Clearance Certificate. A drivers licence is usually required.

### Employment Opportunities

Most private investigators are self-employed or work in a small team with other agents.

Many private investigators enter the occupation after working in the police or defence forces.

Work is mainly generated by investigation of suspected insurance fraud and location of missing persons.

### For Further Information

- Australian Institute of Private Detectives ☎ (02) 9975 6430  
✉ [exec@aipd.com.au](mailto:exec@aipd.com.au) 🌐 [www.aipd.com.au](http://www.aipd.com.au)
- Institute of Mercantile Agents 🌐 [www.imal.com.au](http://www.imal.com.au)
- Private Agents Registry, Victoria Police ☎ 1300 651 645  
✉ [licensing@police.vic.gov.au](mailto:licensing@police.vic.gov.au)  
🌐 [www.police.vic.gov.au](http://www.police.vic.gov.au)

### Related Jobs

Debt Collector (p 141); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Security Officer (p 364).

## Probation and Parole Officer

Also known as Community Corrections Officer and Parole Officer.

Probation and parole officers supervise offenders who have been placed on community-based orders by the courts, and offenders released on parole from prison.

Probation and parole officers may perform the following tasks:

- manage and supervise offenders who have received community-based supervision orders (e.g. community service, home detention, probation or parole) and make sure that they comply with the relevant order conditions
- monitor home detainees by means of home visits and electronic monitoring technology and report all breaches of conditions
- develop and implement community-based work programs
- assess suitability and placement and management of offenders granted community service orders and fine option orders
- interview offenders, their families, employers and teachers to obtain information
- submit reports and recommendations on whether parole should be granted
- provide advice to assist the courts in determining the suitability of offenders to be placed on community-based orders
- assist offenders to obtain employment
- identify the risks and needs of offenders and refer them to appropriate programs and/or external agencies
- advise parolees and those on community-based orders, on matters such as education, employment, finance, housing and other community services which may help in their rehabilitation
- conduct regular interviews with offenders and report on their progress
- maintain contact with families to help solve problems of readjustment and rehabilitation
- assist in preparing briefs for prosecuting offenders who fail to comply with community-based orders or breach parole conditions
- maintain and develop offender records and administrative procedures

- take part in staff development and training programs, and provide training to new staff
- participate on various committees to assist in policy, practice and community development.

Probation and parole officers may work in an office or in non-institutionalised community corrections centres. A proportion of their time is spent at court and visiting prisons to interview and assess offenders and prisoners.

### Personal Requirements

- able to work in a team environment
- maturity, patience, tolerance and discretion
- able to assess people and situations
- genuine interest in people and their welfare
- assertiveness
- good interpersonal skills
- good communication skills.

### Education and Training

You can work as a probation and parole officer without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have experience and qualifications in relevant disciplines including social work, counselling and community services. Certificate and diploma courses in these areas are widely available and offered by various Registered Training Organisations, including TAFE. Degree courses in these areas are available at most universities in Victoria. For course details, check institution handbooks or see the entries for Counsellor, Social Worker, Welfare Worker and Youth Worker.

Entry to certificate courses usually requires Year 10. To get into the diploma and degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Costs, duration and entry requirements may vary between courses. See the online entry for Probation and Parole Officer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

The recruitment process at Corrections Victoria includes a number of stages and activities that all applicants must successfully complete. Stages include a telephone interview, suitability testing and an assessment centre. The assessment centre is a half-day assessment intended to assess candidate skills and abilities through a variety of activities including an interview and a group exercise.

### Additional Information

You must pass a National Police check to become a probation and parole officer.

### Employment Opportunities

In Victoria, probation and parole officers are employed by Corrections Victoria.

Job opportunities depend on the crime rate and the type of sentencing applied. There is strong competition for available positions.

### For Further Information

- Corrections Victoria ☎ (03) 8684 6600  
✉ [corrections@justice.vic.gov.au](mailto:corrections@justice.vic.gov.au) 🌐 [www.justice.vic.gov.au](http://www.justice.vic.gov.au)

### Related Jobs

Community Worker (p 122); Correctional Officer (p 132); Counsellor (p 133); Disability Services Instructor (p 148); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Social Worker (p 373); Welfare Worker (p 436).



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## Product Assembler

Also known as Assembler and Factory Hand.

Product assemblers put together components and subassemblies that go into the production of metal products, electrical and electronic equipment, joinery products, jewellery and precious metal articles.

Product assemblers may perform the following tasks:

- locate, position and secure components on workbenches
- punch and drill mounting holes in parts and assembled products
- assemble and secure components in sequence
- assemble parts by nailing, screwing, gluing and pinning, riveting, soldering and spot welding components
- fit hardware items, such as hinges, catches and knobs, to parts
- attach and fasten jewellery parts to fabricate bracelets, necklaces, brooches and earrings
- remove raised edges and finish items using files, grinding wheels and emery paper
- check products to identify and reject defective items
- work under instruction from leading hands or supervisors
- pack products into boxes and stack onto pallets
- operate automatic and semi-automatic machinery and tools, such as conveyor belts, bottling machines or soldering irons
- manually wind light electrical field coils.

Product assemblers work in factories and workshop usually under close supervision. Working conditions can be noisy and they may be required to stand for long periods while performing repetitive work. Factories will often rotate their staff so that they are not doing the same task for too long and so that staff are multi-skilled across production operations.

Specialisations

**Process Worker** - assembles components and performs production line operations and other manual duties in factories.

**Electric and Electronic Goods Assembler** - joins parts and wires, manually or using simple tools, to assemble switchboards, light switches, heaters, car audio systems, telecommunications systems and other electrical and electronic equipment.

**Machinery Assembler** - joins metal parts together to assemble machines.

**Metal Goods Assembler** - operates automatic or semi-automatic machines or machine tools to assemble hinges, door handles and other metal products.

**Metal Trades Assistant** - assists metal engineering tradespeople by performing routine tasks.

**Computer Assembly Technician** - builds computers from component parts, including circuit boards, disk drives, cables and switches.

Personal Requirements

- enjoy practical and manual work
- careful and patient
- good eyesight
- good hand-eye coordination
- able to carry out repetitive tasks quickly and methodically
- able to work as part of a team
- able to read and follow instructions
- safety conscious.

Education and Training

You can work as a product assembler without formal qualifications. You will probably get some informal training on the job.

You can also become a product assembler through a traineeship in Electronic Assembly, Process Manufacturing, Engineering - Production Technology or Computer Assembly and Repair. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Manufacturing, Metal and Engineering or Electrotechnology Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Employment Opportunities

Product assemblers are employed by a wide range of manufacturing and processing companies in metropolitan areas and in larger country towns.

For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

Related Jobs

Engineering Tradesperson - Fabrication (p 164); Engineering Tradesperson - Mechanical (p 165); Tool and Die Setter (p 408).

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## Production Crew Member

Also known as Roadie.

Production crew members look after the setting up, dismantling, removal and maintenance of music and theatre production equipment for stage performances. They also transport and maintain equipment between shows.

Production crew members may perform the following tasks:

- implement stage design under the direction of the stage manager
- select and position sound and lighting equipment
- carry, maintain and repair production equipment
- arrange for transportation of equipment to remote locations
- arrange and connect cables to electrical supply using portable junction boxes
- monitor security and handle cash.

Production crew members may be required to travel long distances and to remote locations when on tour with a show. They work irregular hours or shifts.

Personal Requirements

- able to work as part of a team
- physically fit
- able to work under pressure and at heights
- creative.

Education and Training

You can work as a production crew member without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate courses below usually requires Year 12. As subjects can vary between institutions, you should contact the institutions you are interested in for full details. Applicants may also be required to attend an interview.

You can also become a production crew member through a traineeship in Live Production, Theatre and Events (Technical



Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

##### *Bendigo Institute of TAFE - Bendigo Campus:*

- Certificate III in Music Industry (Technical Production)
- Certificate IV in Music Industry (Technical Production)

##### *Goulburn Ovens Institute of TAFE - Benalla Campus:*

- Certificate IV in Live Production, Theatre and Events (Technical Operations)

##### *Holmesglen Institute of TAFE - Chadstone Campus:*

- Certificate IV in Live Production, Theatre and Events (Technical Operations)

##### *Northern Melbourne Institute of TAFE - Fairfield Campus:*

- Certificate IV in Music Industry (Technical Production)

##### *RMIT University (TAFE Division) - City Campus:*

- Certificate IV in Music Industry (Technical Production)

##### *Victoria University (TAFE Division) - Footscray Nicholson Campus:*

- Certificate IV in Music Industry (Technical Production)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment or Music Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Production crew members are employed by theatre groups, production companies and touring bands. Competition for entry-level positions is very strong. Applicants are required to have experience, which can be gained through voluntary work experience in related areas.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Audiovisual Technician (p 80); Film and Television Camera Operator (p 175); Film and Television Lighting Operator (p 177); Musician (p 284); Sound Technician (p 375); Stage Manager (p 382).

## Programmer (Information Technology)

Also known as Applications Programmer and Systems Programmer.

Programmers write, test and maintain computer programs to ensure that the computer application meets the needs of the users of the computer system.

Programmers may perform the following tasks:

- assist systems analysts and/or designers in researching and documenting computer users' requirements
- analyse objectives and problems specified by analysts and/or designers

- translate the solutions provided by systems designers into detailed program specifications
- prepare documentation for other programmers, users of the system and other support services workers
- undertake program design activities including definition of data and error message arrangements
- supervise and report on the work of junior programmers
- modify and document program code to correct errors or to enhance a program's capabilities
- test the programs and make amendments
- prepare reports on the status, operation and maintenance of system software for use by computer equipment suppliers, systems designers, other programmers and computer operators.

#### Specialisations

**Analyst Programmer** - involved in higher-level design and analysis. This is the typical next step in the career of a programmer.

**Communications Programmer (Systems)** - is involved in activities associated with programming telecommunications infrastructures, for example stored program-controlled telephone exchanges. Communications programming (systems) has also been used to describe the work of network programmers. See the section below on network programmers.

**Database Programmer (Systems)** - is involved in the development of programs to suit access and maintenance of databases. It is often considered to be part of the database design role. See the section on database design specialists under the separate entry for Systems Designer (Information Technology).

**Multimedia Programmer** - examines systems and applications programming issues involving the conversion between platforms and the initial writing of code for incorporation of text, graphics, video, animation, digital/analogue photographs, audio and 2D/3D modelling. Further specialisations are also possible, such as video systems development programming and PC-lead programming.

**Network Programmer** - works with vendor networking languages to support the implementation or modification of network configurations. Ongoing education in vendor products and technical matters is important.

**Systems Software Programmer** - works with the code used to define the particular operating system and sometimes also with low-level machine language. They write, maintain and update programs that control the overall functioning of computers.

**Information Technology Manager** - plans, administers and reviews the acquisition, development, maintenance and use of computer and telecommunications systems within organisations. The IT manager is often the most senior person in the IT department and in large organisations may be called the IT Director or Chief Information Officer.

#### Personal Requirements

- good at technical activities
- logical approach to the solution of problems

[www.it.monash.edu](http://www.it.monash.edu)



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- able to work independently or as part of a team
- good communication skills
- willing to continue to learn as technology changes.

#### Education and Training

To become a programmer you usually have to complete a diploma or degree in information technology with a major in programming or software or games development. To get into these courses, you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Relevant diploma and degree courses in information technology are offered by numerous Registered Training Organisations, including TAFE, and universities in Victoria. Refer to the institution handbooks for further details.

Costs, duration and entry requirements may vary between courses. See the online entry for Programmer (IT) at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

Memberships with the Australian Computer Society are available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

#### Employment Opportunities

Programmers may work in small IT companies or in larger organisations. There are some opportunities to work on a freelance basis. Typically, people working as programmers would advance into designer and analyst roles after some years of experience. In some smaller organisations, all three roles may be carried out by a single individual.

#### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)

#### Related Jobs

Analyst (Information Technology) (p 65); Computer Systems Auditor (p 125); Electronics Engineer (p 162); Games Developer (p 198); Information Technology Support Technician (p 229); Mathematician (p 261); Sales Representative (Information Technology) (p 360); Systems Designer (Information Technology) (p 390); Web Designer/Developer (p 435).



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## Projectionist

Projectionists set up and operate movie projectors in cinemas, outdoor venues and drive-in theatres.

Projectionists may perform the following tasks:

- make sure the film is in good condition
- thread film into projectors
- start the projector, adjust the sound level, focus the image and keep an eye on the projectors to make sure nothing goes wrong
- change over and close down projectors
- perform minor repairs and basic maintenance to equipment and make safety checks
- operate slide projectors, spotlights or similar equipment
- operate computerised equipment (called 'bio-box') used in large cinema complexes
- supervise other staff and trainees
- ensure compliance with safety regulations for cinemas
- operate heating and airconditioning equipment, emergency lighting, curtains and music, which may involve using computerised equipment
- work in the ticket box, candy bar or office
- assist with general theatre maintenance.

Projectionists work in a dimly lit environment. They are often required to work shifts, including late nights.

#### Personal Requirements

- good eyesight (may be corrected) and hearing
- normal colour vision
- quick reflexes and mechanical aptitude
- able to work in confined areas
- able to work alone and as part of a team
- good communication skills
- initiative.

#### Education and Training

You can work as a projectionist without formal qualifications. You will probably get some informal training on the job.

You can also become a projectionist through a traineeship in Live Production, Theatre and Events (Technical Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

The majority of jobs are located in metropolitan areas and employment is usually on a casual basis.

The rise in use of digital projection in cinemas means that projectionists are increasingly required to have an understanding of digital formats and digital projection.

#### For Further Information

- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Film and Television Lighting Operator (p 177).



## Prosthetic/Orthotic Technician

Also known as Orthotic Technician.

Prosthetic/orthotic technicians make, repair and maintain prostheses (artificial limbs) or orthoses (braces, callipers and related devices).

Prosthetic/orthotic technicians may perform the following tasks:

- use tools, machinery, plastic, wood and metal to make and repair prostheses and orthoses
- assist professional prosthetists and orthotists.

Prosthetic/orthotic technicians work in a laboratory under the guidance of, and instruction from, professional prosthetists and orthotists. They are not normally engaged in direct client treatment.

### Personal Requirements

- good at technical activities
- good hand-eye coordination
- good communication skills
- able to work as part of a team
- able to work with accuracy and attention to detail.

### Education and Training

To become a prosthetic/orthotic technician you usually have to complete a traineeship in Prosthetic/Orthotic Technology. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Prosthetic/orthotic technicians work in special units located in major teaching hospitals, charitable institutions and in private employment.

Job opportunities depend on the need for prostheses and orthoses, often resulting from amputations (as a result of cancer, accidents, burns, diabetes and other causes), and advances in technology and the manufacture of prostheses and orthoses, such as the use of new materials and electronics.

### For Further Information

- Australian Orthotic and Prosthetic Association Inc (National Office)  
☎ (03) 9898 7733 ✉ [exec@aopa.org.au](mailto:exec@aopa.org.au) 🌐 [www.aopa.org.au](http://www.aopa.org.au)

### Related Jobs

Biomedical Engineer (p 89); Prosthetist/Orthotist (p 337).

Prosthetists/orthotists may work with prosthetic/orthotic technicians and other health professionals.

### Personal Requirements

- mechanical aptitude
- good communication skills
- able to work as part of a team.

### Education and Training

To become a prosthetist/orthotist you usually have to study prosthetics and orthotics at university. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, chemistry, mathematics, biology, physical education and physics are normally required. Contact the university for more information as requirements may change.

### Degree Courses

*La Trobe University - Bundoora Campus:*

Bachelor of Health Sciences and Master of Clinical Prosthetics and Orthotics, 4 years full time

### Additional Information

On completion of the Bachelor of Health Sciences and Master of Clinical Prosthetics and Orthotics at La Trobe University, graduates are eligible for membership of the Australian Orthotic and Prosthetic Association.

### Employment Opportunities

Prosthetists and orthotists work in special units located in major teaching hospitals, rehabilitation centres and private practice. Employment may also be found with commercial companies, which design and manufacture aids for the disabled.

### For Further Information

- Australian Orthotic and Prosthetic Association Inc (National Office)  
☎ (03) 9898 7733 ✉ [exec@aopa.org.au](mailto:exec@aopa.org.au) 🌐 [www.aopa.org.au](http://www.aopa.org.au)
- National Centre for Prosthetics and Orthotics - La Trobe University  
☎ (03) 9479 5815 ✉ [ncpo@latrobe.edu.au](mailto:ncpo@latrobe.edu.au)  
🌐 [www.latrobe.edu.au/ncpo](http://www.latrobe.edu.au/ncpo)

### Related Jobs

Biomedical Engineer (p 89); Physiotherapist (p 319); Prosthetic/Orthotic Technician (p 337).

## Psychologist

Psychologists study human behaviour and the processes associated with how people think and feel; conduct research and provide treatment and counselling in order to reduce distress and behavioural and psychological problems; and promote mental health and positive behaviour in individuals and groups.

Psychologists work on a broad range of issues with clients, including children, adults, couples, families and organisations.

Psychologists may perform the following tasks:

- conduct therapeutic interviews and provide counselling
- give psychological tests and assess the results to identify the source of problems and determine treatment
- research psychological aspects of topics such as study motivation, teaching skills, occupational behaviour, working conditions and organisational structures
- provide follow-up services to groups and individuals for support and evaluation purposes
- evaluate the results of programs aimed at improving personal and organisational effectiveness
- construct tests to assess and predict mental and emotional states, as well as performance
- conduct academic research.

## Prosthetist/Orthotist

Prosthetists/orthotists are responsible for the provision of prostheses (artificial limbs) to people with amputations, and orthoses (supportive devices) to people with muscular and skeletal disabilities. They aim to maximise the function and comfort of the client by providing the most appropriate prosthetic or orthotic treatment.

Prosthetists/orthotists may perform the following tasks:

- establish clients' needs by physical examination
- provide advice to other health care professionals in pre-surgical planning and in the formulation of prescriptions for prostheses or orthoses
- design, fabricate, fit and align the prostheses or orthoses
- test the effectiveness and comfort of these aids and educate clients regarding their use
- record and report clinical information
- supervise support personnel.



## Specialisations

**Clinical Neuropsychologist** - specialises in the assessment and diagnosis of brain impairment and how this affects thinking skills, emotions, behaviour and personality. They are also involved in the rehabilitation and management of the effects of brain impairment and often work with other health professionals.

**Clinical Psychologist** - is trained in the assessment, diagnosis and treatment of mental illness and psychological problems. Located in hospitals, universities, general medical practices, community health centres and private practice, they often work with general medical practitioners, psychiatrists and other health professionals.

**Counselling Psychologist** - provides assessment, diagnosis and psychological therapy for individuals, couples, families, groups and organisations, and treats a wide range of psychological problems and mental health disorders. They work in counselling agencies, government departments, hospitals, GP divisions, educational institutions and private practice.

**Educational and Developmental Psychologist** - provides assessment, intervention and counselling services related to the developmental and educational issues that occur in life. Specialisations include life span transitions, early intervention, disability, problems of learning and adjustment in schools, career and family development and ageing.

**Forensic Psychologist** - applies psychological knowledge, theory and skills to matters related to the legal and criminal justice system. They provide expert opinion to the courts in such matters as criminal behaviour, child abuse and family court cases.

**Health Psychologist** - is concerned with illness prevention and health promotion. They have knowledge of, and assess and treat, the biological, psychological and social factors that determine health and illness in order to promote positive change and wellbeing.

**Organisational Psychologist** - seeks to understand the complex inter-relationships that occur within the workplace in order to improve organisational effectiveness and individual wellbeing. They apply psychological principles and methods to understand and influence work behaviour, worker attitudes, organisational structures and organisational systems.

**Sport and Exercise Psychologist** - helps sportspeople to achieve their optimum mental health and wellbeing to improve their sporting performance. They may support athletes who are recovering from injuries, have not met their performance expectations, or who are struggling with the pressure of training and competition.

### Personal Requirements

- interested in people and human behaviour
- able to solve problems
- an inquisitive mind
- patience and perceptiveness
- good oral and written communication skills.

### Education and Training

To become a psychologist you usually have to complete a degree majoring in psychology or a four-year Bachelor of Psychology. This is followed by either an accredited two-year postgraduate qualification (majoring in counselling; clinical neuropsychology; or clinical health, educational and developmental, sport, forensic, organisational or community psychology), or two years of supervised experience with a registered psychologist.

Psychology can be studied as a major in an arts, social science or science degree. The fourth year of bachelor degree study, which is

needed to satisfy registration requirements, may be undertaken as an honours year in the Bachelor of Psychology degree, a Graduate Diploma of Psychology or a Postgraduate Diploma of Psychology.

To get into these courses you usually need to gain your VCE. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer accredited Bachelors of Arts, Science or Social Science, with a major in psychology, 3 years full time or equivalent, or a four-year Bachelor of Psychology. Contact your preferred institution for further details.

### Additional Information

The Australian Psychology Accreditation Council (APAC) sets the standards for accreditation of Australasian psychology programs, ensuring that the standards of training remain rigorous and consistent across universities. For students to be eligible for registration, they must study a course that is accredited by APAC. See their website ([www.apac.psychology.org.au](http://www.apac.psychology.org.au)) for an up-to-date list of the study sequences.

In July 2010, a new National Registration and Accreditation Scheme came into effect for a number of health occupations, including psychology. State and Regional Boards assist the Psychology Board of Australia by implementing these national standards and policies. For full details, see the Psychology Board of Australia's website.

It is a legal requirement for graduates to be registered with the Psychology Board of Australia before being able to practice as a psychologist in any state or territory in Australia.

The Australian Psychological Society (APS) is the peak body for the psychology profession in Australia, representing a high proportion of Australian psychologists. Visit their website for more information.

### Employment Opportunities

Psychologists are employed by government and privately run community welfare organisations and by hospitals, industry and the Australian Defence Force. They are also employed in private practice and in private health clinics.

Many psychology graduates do not find work as psychology specialists but are employed in positions where they can use the skills learned through their psychology training. Research skills are especially useful in market research, advertising, management or business consultancy. Other areas such as social welfare, community work, human resource management, training, teaching and lecturing, and clerical and administrative work also provide employment for psychologists.


### For Further Information

- The Australian Psychological Society Ltd ☎ (03) 8662 3300 or 1800 333 497 (FREECALL) ✉ [contactus@psychology.org.au](mailto:contactus@psychology.org.au)  
🌐 [www.psychology.org.au](http://www.psychology.org.au)
- CRS Australia ☎ 1800 277 277 🌐 [www.crsaaustralia.gov.au](http://www.crsaaustralia.gov.au)
- Psychology Board of Australia ☎ 1300 419 495  
🌐 [www.psychologyboard.gov.au](http://www.psychologyboard.gov.au)

### Related Jobs

Anthropologist (p 68); Career Adviser (p 104); Counsellor (p 133); Criminologist (p 137); Health Promotion Officer (p 210); Market Researcher (p 257); Marketing Officer (p 257); Rehabilitation Counsellor (p 352); Social Worker (p 373); Sociologist (p 374); Sports Scientist (p 380); Teacher - Early Childhood (p 392); Teacher - Special Education (p 398); Youth Worker (p 442).



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## Public Relations Officer

Also known as Public Affairs Officer and Corporate Affairs Officer. Public relations officers plan, develop, put into place and evaluate information and communication strategies that present the organisation to the public, clients and other stakeholders. They also promote good information flows within the organisation.

Public relations officers may perform the following tasks:

- keep an eye on public opinion regarding an organisation or particular issues
- develop and implement communication strategies for the organisation
- advise management on communication issues and strategies
- plan public relations programs including the preparation of cost budgets
- present arguments on behalf of an organisation to government, other organisations and special interest groups
- respond to enquiries from the public, media and other organisations
- arrange interviews with journalists, prepare and distribute news releases and make statements to the media
- write, edit and arrange production of newsletters, in-house magazines, pamphlets and brochures
- assist in preparing organisational documents such as annual reports, corporate profiles and submissions
- write speeches, prepare visual aids and make public presentations
- oversee production of visual (film or video), audio and electronic material, including managing websites
- organise special events such as open days, visits, exhibitions and functions
- conduct internal communication courses, workshops and media training
- develop risk assessments and implement crisis and issues planning to ensure an organisation's reputation is maintained
- plan, develop and manage brand identity

- organise and manage events, exhibitions, conferences, including product launches
- procure sponsorship.

Public relations officers may have to work in the evenings or on weekends, and may be required to travel for business.

### Specialisation

**Publicity Agent** - promotes, represents and finds employment for individuals and groups in occupations such as acting, music and sport.

### Personal Requirements

- interested in people
- good analytical skills
- able to write concisely
- good oral and written communication skills
- good organisational skills
- enjoy current affairs
- able to work under pressure
- aptitude for working with computers.

### Education and Training

To become a public relations officer you usually have to complete an advanced diploma or degree in public relations or communications. Entry to the advanced diploma usually requires year 12. To get into the degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees with a major in public relations.

### Diploma Courses

**TAFE Victoria - various locations:**

Advanced Diploma of Business (Public Relations)

### Additional Information

While membership is not required to practice, the Public Relations Institute of Australia (PRIA) offers student and professional membership to those in the public relations or communications fields. See the PRIA website for more information.

### Employment Opportunities

Public relations officers work for a variety of organisations such as large industrial or commercial firms, government organisations, tertiary institutions, industry associations, retailers, financial institutions and charitable organisations.

They can also work freelance or be employed by public relations consultancies which offer a range of public relations services or specialise in particular fields.

Public relations officers usually work in cities where media services and other communication facilities are available and where many organisations have their head offices. However, even local councils in regional or remote areas need to communicate with constituents and you may find work there also.

There is strong competition for any positions offered in this field, but people with experience and formal educational qualifications are generally in demand.

### For Further Information

- Public Relations Institute of Australia (National Office)

☎ (02) 9331 3346 ✉ [national@pria.com.au](mailto:national@pria.com.au)

🌐 [www.pria.com.au](http://www.pria.com.au)



## Related Jobs

Advertising Account Executive (p 55); Copywriter (p 131); Journalist (p 239); Market Researcher (p 257); Marketing Officer (p 257); Public Servant - Australian Public Service (p 340).

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## Public Servant - Australian Public Service

Public servants in the Australian Public Service (APS) work in a wide range of areas such as community and social services, defence, economic management, education, employment, foreign affairs, health, housing, industrial relations and transport. They are employed in a variety of clerical, technical and professional careers.

There are various entry points to the APS:

**Trainee Administrative Service Officer** who advances to Administrative Service Officer Level 1/APS Level 1 after completing the Government Traineeship.

**Graduate Administrative Assistant** who advances to Research Officer Grade 1 or Administrative Service Officer Level 3/APS Level 3 after completing their training program.

**Administrative Service Officer/Executive Level Officer** who enters with specific skills in response to advertisements for vacant positions, and may progress to Executive Level 1 or 2, in which they may undertake management roles.

A public servant in the APS may specialise in the following categories:

**Administrative Service Officer** who may perform a range of administrative, research and policy tasks, depending on the government department or agency they work for.

**Information Technology Officer** who provides support, and develops and manages networked computing systems. They also install, customise and support various software systems and other information technology products and services.

**Professional and Technical Officer** who may be employed in a number of areas within the APS, depending on their qualifications and specialisations. They may work as Archivists, Conservators, Librarians, Meteorologists, Microbiologists, Psychologists, Public Relations Officers, or in other professional and technical areas. Refer to these entries for education and training information.

With ability, experience and sometimes further training, progression to senior officer and senior executive positions may be possible. Promotions and transfers to other departments are available after gaining entry to the APS. These are based on merit.

### Personal Requirements

- able to communicate effectively in spoken and written English
- able to deal confidently with people at all levels

- discreet when handling confidential information
- prepared to learn and use information technology
- meet selection criteria of the particular job category
- good character (a police or security check will be performed before anyone can be accepted into the APS)
- able to pass a medical fitness test
- an Australian citizen or a permanent resident seeking citizenship.

### Education and Training

The education and training requirements to become a public servant in the APS differ depending on the position.

There are no standard qualifications to become a Trainee Administrative Service Officer. However, departments and agencies generally require Year 10. Different departments or agencies may have their own specific requirements and should be contacted directly for further information.

Graduate entry into the APS requires completion of a degree from a recognised tertiary institution. Entry to these courses usually requires you to gain your VCE.

To become an Information Technology Officer or Professional and Technical Officer usually requires completion of a diploma, degree or trade qualification, or extensive work experience in the relevant field, depending on the position.

On-the-job training and in-house courses are provided at all levels to develop and broaden work skills. Public servants may be required to undertake further part-time study.

### Additional Information

The actual tasks and duties carried out by the various job levels differ between departments and agencies. For specific task descriptions and training requirements you will need to speak to the recruitment officers of the different departments.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Public Sector Training Package that will expand your career opportunities within the public service. See the Learning Pathways section for more information.

### Employment Opportunities

Australian public servants work in every state and territory in Australia. Many positions are in the capital cities or larger cities and towns. There are limited opportunities for overseas postings. Many graduate entry positions are based in Canberra.

Recruitment and testing services are conducted by the individual Commonwealth government departments and agencies. Contact your chosen department or agency for full details. Department and agency contact details are available in the White Pages or through the Federal Government website at [www.australia.gov.au](http://www.australia.gov.au).

Some jobs are advertised in local or national newspapers. Vacancies for permanent APS positions are also advertised on the Australian Public Service website at [www.apsjobs.gov.au](http://www.apsjobs.gov.au). Most jobs advertised on the website are open to all Australians, not just those already in the APS.

For Indigenous Australians, opportunities for employment while studying are available under the Indigenous Cadetship Support initiative. This employment program aims to assist Indigenous job seekers to gain professional positions in both the private and public sectors. Contact the Indigenous employment line on 1802 102 (FREECALL) or visit [www.ics.deewr.gov.au](http://www.ics.deewr.gov.au) for more information.

Competition for positions in the APS is very strong.



### For Further Information

Contact your chosen government department for further information regarding this occupation.

### Related Jobs

Administrative Assistant (p 54); Clerical Officer - Local Government (p 120); Customs and Border Protection Officer (p 138); Customs Broker (p 139); Foreign Affairs and Trade Officer (p 191); Human Resources Officer (p 219); Occupational Health and Safety Officer (p 298); Office Administrator (p 300); Parliamentarian (p 310); Police Officer - Australian Federal Police (p 326); Postal Employee (p 329); Public Relations Officer (p 339); Public Servant - State Government (p 341); Recruitment Consultant (p 349); Research Officer (p 353); Translator (p 415); Welfare Worker (p 436).

## Public Servant - State Government

Public servants work in any of the departments of a state or territory government.

The State Public Service offers a broad range of administrative, clerical, technical and professional careers in areas such as public policy, planning, welfare, education, natural resources management, water supply, construction, legal services, law and order, health, and tourism and recreation.

The main fields of employment are administrative and clerical, and professional and para-professional. These occupations exist across all departments and agencies and include positions from entry level to senior management.

For details on the range of tasks that may be performed by administrators and clerks, see the separate job descriptions for Accounts Clerk, Clerk, Human Resources Officer, Occupational Health and Safety Officer, Office Administrator, Transport Clerk and Word Processing Operator.

For information on the work performed by professional and para-professional employees, see the separate job descriptions for Accountant, Agricultural Scientist, Analyst (Information Technology), Economist, Environmental Scientist, Geologist, Hydrographer, Lawyer, Librarian, Nurse - Registered, Police Officer - State, Programmer (Information Technology), Teacher and Training Officer.

The State Public Service may also employ trade and technical people. For further information, see the separate descriptions for Bricklayer, Carpenter, Civil and Structural Engineering Associate, Electrical Engineering Technician, Electrician, Forest Technical Officer, Geographic Information Systems Officer and Geoscience Technician.

### Personal Requirements

- good oral and written communication skills
- discreet when dealing with confidential information
- able to analyse and solve problems
- good organisational and supervisory skills
- responsible attitude
- able to work neatly and accurately
- able to work as part of a team

- methodical approach to work
- able to pass a medical test for some positions (people with disability are given special consideration)
- Australian citizenship or permanent residency.

### Education and Training

To become a public servant in the Victorian Government you usually have to complete Year 10 or your VCE depending on the entry position. Your employment prospects may be improved if you have qualifications, including basic skills in computing, data entry and administration. Training is also given on the job.

You can also become a public servant through an apprenticeship in Government, or in other specialised areas such as business and office administration, information technology and financial services. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Graduate entry into the Victorian Government requires completion of a degree from a recognised tertiary institution. Entry to these courses usually requires you to gain your VCE.

### Additional Information

People interested in joining the Victorian public sector should check [www.careers.vic.gov.au](http://www.careers.vic.gov.au) and advertisements in newspapers, and contact individual departments as well as employment agencies to find out about vacancies. Several departments also offer graduate recruitment programs for graduate entrants. See [www.graduates.vic.gov.au](http://www.graduates.vic.gov.au) for details.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Public Sector (or other) Training Package that will expand your career opportunities within the public service. See the Learning Pathways section for more information.

### Employment Opportunities

Competition for graduate positions remains strong. Promotion and transfers to other departments are available through an internal process, although advancement depends upon an officer's ambitions, qualifications, skills and abilities. Middle-level positions require ability or experience in more complex processing, investigation or supervision. More senior positions involve policy formulation and management skills.

Government departments are located in the central business district, metropolitan and country areas.

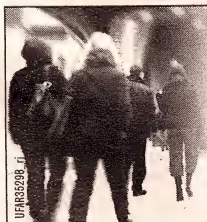
Australian citizenship is no longer a prerequisite to apply.

### For Further Information

- Community and Public Sector Union, SPSF Group (VIC)  
☎ (03) 9639 1822 or 1800 810 153 🌐 [www.cpsuvic.org](http://www.cpsuvic.org)
- Careers with the Victorian Government 🌐 [www.careers.vic.gov.au](http://www.careers.vic.gov.au)

### Related Jobs

Clerical Officer - Local Government (p 120); Court Officer (p 134); Local Government Inspector (p 251); Office Administrator (p 300); Parliamentarian (p 310); Public Servant - Australian Public Service (p 340); Research Officer (p 353); Secretary (p 363); Word Processing Operator (p 440).



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## Publisher

Publishers manage all aspects of the publishing business, including contracts, finance, sales, marketing and production of books, magazines, newspapers, software and online content (e-publishing).

Publishers may perform the following tasks:

- commission works for publication
- select material for publication
- enter into contracts with authors
- arrange for the editing of manuscripts
- employ additional writers and photographers if required
- employ graphic designers and illustrators
- organise the design of finished artwork and ensure all relevant parties have approved of and signed off on designs
- work with sales and marketing departments
- promote the release of new publications within the industry
- prepare media events for publications
- sell subsidiary rights of published works
- maintain close contact with people in the printing trades, as well as book and magazine wholesalers and retailers
- develop and maintain the organisation's strategic plan and business plan
- maintain an accounting system.

This occupation has a high level of personal contact.

### Personal Requirements

- aptitude for business and management
- good oral and written communication skills
- able to apply sound judgment
- able to work to deadlines under pressure
- entrepreneurial.

### Education and Training

You can work as a publisher without formal qualifications. Skills are usually developed on the job and through in-house courses in the publishing industry. Several years experience in the publishing industry, usually as an editor or in marketing and sales, is essential.

However, entry to this occupation may be improved if you have a degree in journalism, communication, business studies, marketing or an area in the humanities, such as English. These courses are offered at most universities in Victoria. Refer to institution handbooks for further details. See also separate entries for Editor, Journalist, Public Relations Officer, Marketing Officer and Writer for relevant education and training.

To get into these courses you usually need to gain your VCE with English. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

### Employment Opportunities

Publishers work in commercial publishing organisations, government departments and other organisations. Many publishers set up their own companies, buying distribution services from specialists.

Advancement to management level as a publisher is dependent on business and marketing sense and the capacity for hard work, as well as a number of years of experience in the publishing industry. Familiarity with computers, especially desktop publishing, is now essential.

### For Further Information

- Australian Publishers Association ☎ [www.publishers.asn.au](http://www.publishers.asn.au)
- Society of Editors (VIC) Inc ✉ [president@socedvic.org](mailto:president@socedvic.org)  
☎ [www.socedvic.org](http://www.socedvic.org)

- Victorian Writers' Centre ☎ (03) 9094 7855 ✉ [info@vwc.org.au](mailto:info@vwc.org.au)  
☎ <http://vwc.org.au>

### Related Jobs

Copywriter (p 131); Desktop Publisher (p 145); Editor (p 155); Illustrator (p 221); Journalist (p 239); Marketing Officer (p 257); Writer (p 441).

## Q

## Quality Assurance Inspector

Also known as Quality Assurance Officer, Quality Control Officer, Quality Coordinator and Quality Technician.

Quality assurance inspectors examine manufactured products, primary produce and services to make sure they meet all standards of presentation and quality.

Quality assurance inspectors may perform the following tasks:

- study product specifications
- sample products to determine whether they meet specifications and quality standards, and take corrective action if necessary
- analyse quality assurance data and make recommendations for improvement
- train and assist operators to carry out their quality control functions
- check details of assemblies
- compile reports.

With experience and sometimes further training, it may be possible to become a quality assurance manager, who has responsibility for all quality systems within an organisation.

Quality assurance inspectors are required to communicate with production workers and work together to develop systems that promote quality.

### Personal Requirements

- enjoy clerical and administrative work
- good oral and written communication skills
- able to work independently or as part of a team
- eye for detail
- able to analyse and solve problems
- safety and environmentally conscious.

### Education and Training

You can work as a quality assurance inspector without formal qualifications. You will probably get some informal training on the job. However, entry into this occupation may be improved if you have a certificate in quality management.

Entry to the certificate courses below usually requires Year 12. As subjects can vary, you should contact your chosen institution for full details.

### Certificate Courses

*East Gippsland Institute of TAFE - Flexible Learning and Outreach Centres:*

Certificate IV in Quality Management and Assurance

*Kangan Institute of TAFE - Broadmeadows Campus:*

Certificate IV in Quality Management and Assurance

*South West Institute of TAFE - Warrnambool Campus:*

Certificate IV in Quality Management and Assurance

*Wodonga Institute of TAFE - Wodonga Campus:*

Certificate IV in Quality Management and Assurance



## Employment Opportunities

Quality assurance inspectors work in all sectors of the economy, but especially in the manufacturing and processing industries. They are usually experienced workers who have worked their way up through the company.

Many private organisations and government departments have developed or are developing formal quality assurance and continuous improvement programs.

There is a growing trend with employers seeking graduates who can coordinate quality systems rather than simply carry out quality assurance inspection.

### For Further Information

- Australian Organisation for Quality Inc ☎ (08) 8343 8430  
✉ office@aoq.asn.au 🌐 www.aoq.net.au
- RABQSA International (Head Office) ☎ (02) 4728 4600  
✉ info@rabqsa.com 🌐 www.rabqsa.com

### Related Jobs

Civil Engineer (p 116); Laboratory Worker (p 240); Meat Processing Worker (p 262); Mechanical Engineer (p 263); Non-destructive Testing Technician (p 294); Primary Products Inspector (p 330).

## Quantity Surveyor

Also known as Building Estimator and Construction Economist.

Quantity surveyors prepare cost estimates and plans, audit projects, manage construction costs and administer construction contracts for all levels and types of construction.

Quantity surveyors may perform the following tasks:

- talk to architects, engineers, builders, contractors, suppliers and project owners
- study architectural and engineering drawings and specifications
- prepare a 'Bill of Quantities', which lists the individual components required to construct the project
- check on changes of design to assess the effects on cost
- assess and recommend payment to contractors during construction
- prepare monthly cash-flow forecasts for clients and tax depreciation schedules
- undertake feasibility studies to assist in decisions about the worth of a project proceeding
- act as consultants to business and government.

Quantity surveyors usually work in offices. They also visit building sites, clients and other members of construction teams.

### Personal Requirements

- analytical and logical
- able to concentrate for long periods
- good oral and written communication skills
- able to work accurately with figures
- able to work independently or as part of a team
- aptitude for working with computers.

### Education and Training

To become a quantity surveyor you usually have to study construction management at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

#### Deakin University - Geelong Waterfront Campus:

Bachelor of Construction Management, majoring in quantity surveying, 4 years full time or equivalent

#### RMIT University - City Campus:

Bachelor of Applied Science (Construction Management), 4 years full time

#### University of Melbourne - Parkville Campus:

Bachelor of Environments, 3 years full time or equivalent, followed by a Masters in Construction Management, 3 years full time or equivalent

#### Victoria University - Footscray Park, Newport and Werribee

##### Campuses:

Bachelor of Technology (Building Surveying), 4 years full time (first 3 years split between Newport and Footscray Park, final year split between Footscray Park and Werribee)

### Additional Information

Graduates may be eligible for membership of the Australian Institute of Quantity Surveyors or for probationary membership of the Royal Institution of Chartered Surveyors. It is also possible to become a student member of both institutes while studying. Qualifications are recognised worldwide.

### Employment Opportunities

Quantity surveyors work with architects, building contractors, developers, engineers and project managers. They can work as individual consultants or as part of a small or medium sized firm. Some work as academics in universities. Some may find employment in government agencies. Those in the building industry usually work on larger scale projects such as office complexes, high density residential projects, hotels, factories and hospitals.

With experience, progress to managerial positions in the construction industry is possible.

Job prospects can fluctuate depending on the level of building activity.

### For Further Information

- Australian Institute of Quantity Surveyors (National)  
☎ (02) 6282 2222 ✉ contact@aiqs.com.au  
🌐 www.aiqs.com.au
- Royal Institution of Chartered Surveyors (National Office)  
☎ (02) 9216 2333 ✉ info@rics.org.au  
🌐 www.rics.org/oceania

### Related Jobs

Architect (p 70); Architectural Technician (p 71); Building Surveyor (p 96); Economist (p 154); Landscape Architect (p 242); Urban and Regional Planner (p 423).

# R

## Radiation Therapist

Radiation therapists design, plan and administer radiation treatment to cancer patients, and provide related care to patients in conjunction with radiation oncologists or other medical specialists.

Radiation therapists may perform the following tasks:

- provide explanations and information to patients about radiation therapy treatment, its possible side-effects, and self-care procedures
- coordinate the various activities that make up the patient's treatment and care plan



- use simulators, CT scanners and other medical imaging equipment to identify and define the anatomy to be treated and those to be avoided
- devise a treatment plan that will deliver the optimum radiation dose to the target anatomy and minimise dose to unaffected anatomy
- calculate the treatment machine settings, associated equipment and computer verification systems to deliver the radiation dose as prescribed by the radiation oncologist
- administer and record dosage of the radiation treatment on patients' record sheets
- monitor and assess the patient's wellbeing before, during and after the treatment, taking particular note of side effects of treatment
- participate in research and development activities and clinical trials
- supervise and train students allocated from universities in the practical aspects of radiation therapy

Radiation therapists work in hospitals and/or radiation oncology centres. They work in teams which include radiation oncologists, nurses, medical physicists, engineers and technicians, data managers and administrative staff.

#### Personal Requirements

- interest and ability in science
- attention to detail
- able to work neatly and accurately
- good oral and written communication skills
- able to work as part of a team
- computer skills
- patience and empathy.

#### Education and Training

To become a radiation therapist you usually have to study medical radiation science at university. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, biology, chemistry and physics are normally required. Contact the university for more information as requirements may change.

#### Degree Courses

##### *RMIT University - Bundoora Campus:*

Bachelor of Applied Science (Medical Radiations), specialising in radiation therapy, 3 years full time

#### Additional Information

Students may be required to gain student registration with the Medical Radiation Practitioners Board of Victoria prior to undertaking clinical placement. They may also be required to obtain a current, recognised first aid certificate, a Criminal History Check, and fulfill immunisation requirements, before undertaking their first professional placement.

Depending on the length of the university course, some graduates are required to complete a year of clinical practice before receiving full accreditation. Those completing a four-year degree with the necessary clinical component are not required to undertake this additional year. On successful completion of the year, the graduate is eligible for membership to the Australian Institute of Radiography, and must also apply to the Medical Radiation Technologists Board for a licence to practise as a radiation therapist.

From July 2012, all practitioners working in the medical radiation field will be included in the National Registration and Accreditation Scheme for selected health professions. See the Australian Health Practitioner Regulation Agency's website ([www.ahpra.gov.au](http://www.ahpra.gov.au)) for more information.

#### Employment Opportunities

Radiation treatment centres are usually found only in major cities. The career structure for radiation therapists allows for professional

development and promotion in technical, research and managerial areas.

Factors which influence demand for this occupation include government funding and health policy, advances in medicine and technology, ageing of the population and the incidence of cancer.

#### For Further Information

- Australian Institute of Radiography (Federal Office)  
☎ (03) 9419 3336 ✉ [info@air.asn.au](mailto:info@air.asn.au) 🌐 [www.air.asn.au](http://www.air.asn.au)
- Medical Radiation Practitioners Board of Victoria ☎ 1300 661 487  
or (03) 9286 1888 ✉ [registrar@mrpb.vic.gov.au](mailto:registrar@mrpb.vic.gov.au)  
🌐 [www.mrbp.vic.gov.au](http://www.mrbp.vic.gov.au)

#### Related Jobs

Cardiac Technologist (p 103); Medical Imaging Technologist (p 267); Nuclear Medicine Technologist (p 294).

## Radiator Repairer

Radiator repairers test radiators for obstructions or leaks and make repairs as necessary.

Radiator repairers may perform the following tasks:

- modify and repair plastic and aluminium tank radiators
- pump water or compressed air through the unit and flush it with cleaning solvents to remove blockages such as rust or mineral deposits
- remove and clean the radiator core by inserting a rod or submerging it in a solvent
- solder or braze leaks and install new or repaired cores in the vehicle
- repair or replace other units in the cooling system, including faulty water pumps, thermostats and leaky head gaskets.

Radiator repairers usually work outdoors or in an open workshop.

#### Personal Requirements

- enjoy practical and manual work
- no allergies to cleaning solvents.

#### Education and Training

You can work as a radiator repairer without formal qualifications. You will probably get some informal training on the job.

You can also become a radiator repairer through a traineeship in Automotive Mechanical. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Radiator repairers mainly work for small specialist radiator repair firms.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)



## Related Jobs

Automotive Parts Interpreter (p 82); Exhaust Fitter and Repairer (p 170); Heavy Vehicle Motor Mechanic (p 212); Light Vehicle Motor Mechanic (p 250); Tyre Fitter and Repairer (p 421); Vehicle Serviceperson (p 427); Windscreen Fitter (p 437).

## Radio Despatcher

Also known as Communications Controller and Control Room Operator.

Radio despatchers provide radio and communications services for the coordination of operational units in transport, courier, emergency, military, security, rescue and road service organisations.

Radio despatchers may perform the following tasks:

- receive and relay radio or telecommunications messages from operational units, customers, the public or organisations such as the police, ambulance and fire services
- coordinate radio or network communications between operational units
- maintain records of messages received and relayed
- start up and maintain communications during emergency situations
- prepare reports of communications traffic handled
- coordinate the movements of mobile units
- check alarm systems.

In some states and territories, radio despatchers who work in the emergency services sector (police, fire and ambulance) may be required to be uniformed officers, and therefore must meet the selection criteria for that occupation. Refer to the entries for Ambulance Officer, Firefighter and Police Officer - State for full details.

### Personal Requirements

- good communication skills
- able to think clearly and act quickly
- able to stay calm in difficult situations
- good at technical activities.

### Education and Training

You can work as a radio despatcher without formal qualifications, but employers usually like at least Year 10. You will probably get some informal training on the job.

### Additional Information

To work as a civilian radio despatcher in the emergency services you will also need to have Australian citizenship or permanent residency status, pass a psychological assessment, hold a current Senior First Aid Certificate and pass medical and police checks.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Health or Telecommunications Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Radio despatchers are employed on a full-time, part-time or casual basis, and may be required to do shift and weekend work.

As turnover is relatively high, especially in the transport and courier sectors, there is generally a constant demand to replace those leaving the job.

Radio despatchers who have undertaken appropriate training or who have suitable experience are highly regarded and sought after by employers.

## For Further Information

- Victoria Police Recruitment Services Branch, Victoria Police Centre ☎ 13 20 01  
✉ [hrdd.recruittingservices@police.vic.gov.au](mailto:hrdd.recruittingservices@police.vic.gov.au)  
🌐 [www.police.vic.gov.au](http://www.police.vic.gov.au)

## Related Jobs

Contact Centre Operator (p 129); Paramedic (p 308).

## Railway Infrastructure Worker

Railway infrastructure workers work on the construction, maintenance and operation of railway infrastructure including tracks, signaling equipment and buildings.

Railway infrastructure workers may perform the following tasks:

- inspect and monitor railway tracks
- check, assess and maintain track-laying equipment
- install, maintain and repair tracks, sleepers (wooden or concrete support slats) and ballast (crushed stone surrounding the tracks and sleepers)
- operate equipment
- general site maintenance of the rail corridor.

Railway infrastructure workers work on railway lines and at transfer yards, mines and quarries. They work shiftwork, including weekends and public holidays. Those working in regional or remote locations are required to stay in local accommodation as appropriate.

### Personal Requirements

- enjoy practical and manual activities
- physically fit
- alert and safety conscious
- able to work as part of a team.

### Education and Training

You can become a railway infrastructure worker without formal qualifications. Once you are employed you will receive formal training, both on and off the job. On completion of this training you may receive a nationally recognised qualification.

### Additional Information

Applicants will go through a range of recruitment processes, including personality, aptitude and ability tests, an interview, and a medical check. Age limits may apply.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Railway infrastructure workers may be employed throughout Victoria by passenger services such as Metro Trains Melbourne and V/Line, by the national railway asset owner, Australian Rail Track Corporation (ARTC), or by contractors providing infrastructure services to these operators.

Demand for railway infrastructure workers depends on levels of railway construction and maintenance activity. Employment opportunities may be increased with previous relevant experience.

With experience and further training, promotion to supervisory or other positions is possible.

## For Further Information

- Pacific National Pty Ltd ☎ (02) 8484 8000  
✉ [communication@pacificnational.com.au](mailto:communication@pacificnational.com.au)  
🌐 [www.pacificnational.com.au](http://www.pacificnational.com.au)
- Rail Careers 🌐 [www.railcareers.net.au](http://www.railcareers.net.au)



- Australian Rail, Tram and Bus Industry Union (VIC)  
☎ (03) 9600 3030 ✉ rtbu@rtbuvic.com.au  
🌐 www.rtbuvic.com.au
- Metro Trains Melbourne ✉ jobs@metrotrains.com.au  
🌐 www.metrotrains.com.au
- V/Line Passenger Pty Ltd 🌐 www.vline.com.au

#### Related Jobs

Train and Network Controller (p 412); Train Crew Employee (p 413); Transport Services Officer (p 418).

## Real Estate Salesperson

Also known as Real Estate Sales Consultant and Real Estate Sales Representative.

Real estate salespeople arrange the sale of houses, businesses, flats, factories, shops and farms on behalf of the owners.

Real estate salespeople may perform the following tasks:

- discuss the method of sale, presentation of the property, costs and inspection times with vendors (sellers)
- estimate the current market price and suggest a reserve or minimum selling price
- list details of land or buildings for sale and arrange for the advertising of properties
- assess buyers' needs and locate properties for their consideration
- take prospective buyers to inspect properties
- advise on merits of properties and terms of sale
- draw up legal agreements between vendors and buyers
- arrange finance and insurance.

Real estate salespeople often work irregular hours, including weekends. This occupation involves a great deal of contact with the public and with associated professionals, such as builders, solicitors, conveyancers and banking and local government personnel.

#### Specialisations

**Real Estate Property Manager** - manages rental properties on behalf of the owners, drawing up leases, handling finances and maintenance, advertising vacant premises, arranging property inspections, and choosing suitable tenants in consultation with the property owner.

**Real Estate Agent** - carries out the functions of a real estate salesperson and manages the activities of other real estate salespersons.

#### Personal Requirements

- good communication and negotiation skills
- good presentation and a pleasant manner
- able to network effectively
- strong sales focus
- good organisational skills and attention to detail
- good working knowledge of the local area.

#### Education and Training

To become a real estate salesperson you usually have to complete an accredited course in real estate property. Entry to the courses below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become a real estate salesperson through a traineeship in Property Services (Agency) or Property Services (Real Estate). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian

Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Short Courses

**Real Estate Institute of Victoria:**

Property (Agent's Representative) Course

**TAFE Victoria - various locations:**

Property Agent's Representative Course (Training Program)

#### Certificate Courses

**Real Estate Institute of Victoria:**

Certificate IV in Property Services (Real Estate)

**TAFE Victoria - various locations:**

Certificate IV in Property Services (Real Estate)

**University of Ballarat - SMB Ballarat:**

Certificate III in Property Services - Agency

**Wodonga Institute of TAFE - Wodonga:**

Certificate III in Property Services - Agency

#### Additional Information

Real estate salespeople need to register with the Victorian Business Licensing Authority. In order to register you must be over 18 years of age.

#### Employment Opportunities

Employment opportunities for this occupation vary depending on the state of the real estate industry. The property market is very sensitive to the general state of the economy and factors such as government policy and interest rates.

#### For Further Information

- The Real Estate Institute of Victoria Ltd ☎ (03) 9205 6666  
✉ training@reiv.com.au 🌐 www.reiv.com.au

#### Related Jobs

Auctioneer (p 78); Insurance Agent (p 230); Land Economist (p 241); Settlement Clerk (p 367); Stock and Station Agent (p 384); Strata Managing Agent (p 386); Valuer (p 424).

## Receptionist

Receptionists act as the first point of contact in an organisation, greeting people and attending to enquiries made by phone or in person.

Receptionists may perform the following tasks:

- greet visitors and telephone callers and find out the nature of their enquiry
- operate telephone switchboards and consoles to connect, hold, transfer and disconnect telephone calls
- provide information to assist clients or refer them to appropriate contacts, either in the organisation or elsewhere
- arrange appointments for callers or for people working in the organisation and keep records of these
- carry out word processing, filing, mail-outs, bookkeeping and banking as required
- send out accounts, receive payments and order stationery and office supplies
- open and deal with incoming mail, and organise outgoing mail and postage
- if working in hotels or motels, make reservations, check guests into and out of the hotel, give information on facilities available and advise visitors about places of interest
- if working in surgeries, salons or similar places, organise appointments, deal with changes in schedules, present accounts after treatment and handle money



- if working in sales areas, assist in the promotion of products and give prices and details to customers.

Although the range of tasks varies depending on the place of work, the clerical skills involved are similar. Many positions require keyboard and computer skills.

Receptionists are expected to be able to present an appropriate image for the organisation and deal competently with the people and problems they encounter. In some areas, such as the hospitality industry, they may be required to work outside normal hours including weekends and evenings.

#### Specialisation

**Medical Receptionist** - works in a medical centre and uses their knowledge of medical terminology and software to process accounts and Medicare forms, and make appointments for patients.

#### Personal Requirements

- good communication skills
- able to work neatly and accurately
- good organisational skills
- able to work without supervision
- good presentation and a pleasant manner.

#### Education and Training

You can work as a receptionist without formal qualifications. You will probably get some informal training on the job. However, your employment prospects may be improved if you have formal qualifications in business, office administration, hospitality, or medical reception skills and medical terminology.

Costs, duration and entry requirements may vary between courses. See the online entry for Receptionist at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a receptionist through a traineeship in Business Administration. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Business Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Receptionists may work in a variety of organisations, such as medical centres, law and accounting firms, retail and wholesale firms, factories, travel agencies, hotels, motels, hospitals, schools and in professional offices.

Experience in a variety of clerical duties may be needed for advancement into other areas of administration. These areas include accounts, secretarial, data processing, word processing and office administration.

There is strong competition for positions that do not require experience. Part-time work is becoming more common.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Australian Institute of Office Professionals (National Office)  
☎ (03) 9388 9985 ✉ [nationaladmin@aio.com.au](mailto:nationaladmin@aio.com.au)  
☎ [www.aio.com.au](http://www.aio.com.au)
- Australian Services Union (VIC) ☎ (03) 9342 6700  
✉ [services@asuvic.com](mailto:services@asuvic.com) ☎ [www.asuvic.asn.au](http://www.asuvic.asn.au)

#### Related Jobs

Administrative Assistant (p 54); Clerical Officer - Local Government (p 120); Hotel and Motel Front Office Attendant (p 218); Office Administrator (p 300); Porter - Hotel/Motel (p 328); Secretary (p 363); Word Processing Operator (p 440).

## Records and Information Manager

Records and information managers are responsible for the creation, storage, retrieval and disposal of all recorded information about an organisation's activities.

Information can come in many formats such as digital, photographic, film or paper. This information contributes to what is often called the 'corporate memory' of the organisation, without which an organisation could not function properly or be held accountable for its actions.

Records and information managers may perform the following tasks:

- research and analyse the information needs of an organisation and develop policies, procedures and plans that reflect these needs
- undertake audits of information created and stored within the organisation
- develop policies for the distribution and storage of records, including the incorporation of new information technologies into the organisation
- create and maintain databases for the control and retrieval of information
- provide support to meet regulatory, accountability and transparency requirements of organisations
- interpret freedom of information, archives and records and privacy legislation as they govern access to organisation information
- develop disaster prevention and recovery plans to support organisations after a major disaster or loss of corporate memory.

Records and information managers must work closely with all staff members to make sure that the information systems of the organisation meet their needs and the organisation's objectives.

#### Personal Requirements

- good planning and organisational skills
- good problem solving skills
- good communication skills
- able to work as part of a team
- able to pay attention to detail.

#### Education and Training

To become a records and information manager you usually have to complete a diploma in knowledge management or recordkeeping. However, entry to this occupation may be improved if you have a degree in information management. Entry to the diploma courses below usually requires Year 12. Entry to the degree courses usually requires you to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

There are no suitable diploma courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Degree Courses

##### Deakin University - Burwood Campus:

Bachelor of Information Technology (Multimedia Technology),  
majoring in information management, 3 years full time or equivalent



**La Trobe University - Bendigo and Bundoora Campuses:**

Bachelor of Information Technology, majoring in information systems management, 3 years full time

**La Trobe University - Bundoora Campus:**

Bachelor of Information Systems, majoring in information systems management, 3 years full time or equivalent

**Monash University - Clayton Campus:**

Bachelor of Business Information Systems, 3 years full time or equivalent

**Swinburne University - Hawthorn Campus:**

Bachelor of Business Information Systems, majoring in information systems management, 3 years full time or equivalent

**Victoria University - Footscray Park Campus:**

Bachelor of Information Systems, majoring in information systems management, 3 years full time or equivalent

**Additional Information**

The Records Management Association of Australia (RMAA) is the professional organisation for records and information managers.

Membership is available at various levels depending on qualifications and experience.

**Employment Opportunities**

Records and information managers work in a wide variety of different environments, including federal, state and territory government departments, local councils, commercial firms (e.g. banks, resource companies), churches and professional associations. It is possible to move between different organisations and industries.

Self-employment is possible, mainly through contract work in setting up new record systems and by advising firms on methods of improved record storage and retrieval.

Opportunities are improving based on an increasing demand for digital information systems and for information to be collated and presented in user-friendly forms.

**For Further Information**

- Records Management Association of Australasia (National Office)  
☎ 1800 242 611 (FREECALL) ✉ membership@maa.com.au  
🌐 www.maa.com.au

**Related Jobs**

Archivist (p 72); Health Information Manager (p 210); Inventory and Supply Officer (p 235); Librarian (p 246); Library Assistant (p 247); Library Technician (p 247); Logistics Clerk (p 251).

## Recreation Officer

Also known as Recreation Development Officer.

Recreation officers develop, support and coordinate sport and recreation programs and services for the benefit of the community.

Recreation officers may perform the following tasks:

- organise local sporting and recreational events such as community functions and sporting competitions
- develop and/or administer recreation policy
- plan and promote recreation activities, including events
- prepare and/or administer financial estimates, budgets and resource allocations
- deliver recreational services by initiating, organising and coordinating activities such as sporting matches, hobby classes, school holiday programs, public displays, tournaments and cultural activities
- coordinate and arrange meetings and venues

- recruit, train and/or supervise recreation leaders
- liaise with parents, schools, local sporting organisations, church leaders, social workers, community groups and individuals about programs and facilities
- write proposals, evaluations and correspondence.

Recreation officers may work at one of three levels: professional, technical or operative. Professional officers work as planners, researchers, consultants, educators and administrators. A technical officer's work may involve managing a leisure centre, community centre or sports complex. Recreation officers work at the operative level as youth leaders and outdoor activity leaders. The three levels are not always clearly defined. The relevant responsibilities will vary considerably between different organisations and may overlap.

Most recreation officers have a high level of contact with the public.

**Personal Requirements**

- enjoy outdoor activities
- good communication and negotiation skills
- good administration and organisational skills
- able to lead, motivate and supervise other people
- good sport skills and expertise in a specific area such as swimming or outdoor recreation.

**Education and Training**

To become a recreation officer you usually have to complete a qualification in sport and recreation, sports administration/management, human movement/physical education, event management or a related field. Entry to certificate courses usually requires at least Year 10. Entry to diploma courses usually requires completion of Year 12. To get into degree courses you usually need to gain your VCE. Contact the institutions you are interested in for more information as requirements may change.

Relevant courses are widely available at universities, TAFE institutes and other Registered Training Organisations in Victoria. Costs, duration and entry requirements may vary between courses. See the online entry for Recreation Officer at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a recreation officer through a traineeship in Community Recreation, Outdoor Recreation or Sport and Recreation. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

**Employment Opportunities**

Recreation officers manage and coordinate a variety of organisations, programs and facilities. They may be employed by government authorities, community organisations, schools, commercial organisations such as health and fitness agencies, outdoor recreation or adventure recreation organisations and sports associations. Leisure management is a growth area and people with management or marketing qualifications are sought after.

**For Further Information**

- Sportspeople ☎ 1800 634 388 (FREECALL)  
✉ admin@sportspeople.com.au 🌐 www.sportspeople.com.au
- YMCA Victoria ☎ (03) 9403 5000 ✉ vicoffice@ymca.org.au  
🌐 <http://victoria.ymca.org.au>

**Related Jobs**

Diversional Therapist (p 150); Fitness Instructor (p 185); Lifeguard (p 248); Sports Administrator (p 377); Sports Coach (p 378); Teacher - Physical Education (p 395).



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## Recruitment Consultant

Also known as Recruitment Officer.

Recruitment consultants interview applicants to determine their job requirements and suitability for particular jobs, assess their training needs and help employers to find suitable staff.

Recruitment consultants may perform the following tasks:

- interview people looking for work, and record relevant personal and work details to match them with appropriate jobs
- receive and record job vacancy information from employers
- organise advertising, interviewing and selection processes for recruitment campaigns
- conduct and analyse psychometric tests
- interview job seekers and prepare shortlists of candidates for referral to prospective employers
- check references and suitability of applicants before referral to employers
- prepare résumés and correspondence for suitable applicants to forward to employers
- advise job seekers regarding personal presentation at interviews and about their written applications and résumés
- arrange appropriate training in job skills
- assist with sales and marketing duties designed to increase the client base, including visiting employers to discuss consultancy service and fees, and assess working conditions
- observe jobs to obtain information about job requirements
- prepare job descriptions and letters of appointment
- prepare rosters and duty statements, and organise security passes and identification.

Recruitment consultants in private industry may also specialise. Some may work primarily with office and clerical job seekers, while others work only with professional and executive level recruitment. It is possible to specialise by industry. For example, several consultancies recruit exclusively in the computer industry.

Consultants in private industry often work long hours to interview job seekers who are not available during normal business hours.

### Specialisation

**Case Manager (Recruitment)** - is an experienced recruitment consultant who provides in-depth, intensive assistance to clients who are having trouble finding work because they have been unemployed for a long time or are disadvantaged.

### Personal Requirements

- good intuition and understanding of people's qualities
- good analytical and decision-making skills

- good oral and written communication skills
- confidentiality, tact and discretion when dealing with people.

### Education and Training

You can work as a recruitment consultant without formal qualifications, but employers usually prefer you to gain your VCE. However, entry to this occupation may be improved if you have qualifications in human resources or psychology. Relevant courses are available at the certificate, diploma and degree levels.

Entry to the certificate courses below usually requires a relevant certificate III qualification or work experience. To get into the diploma courses, you usually need to complete the certificate IV. To get into the advanced diploma courses, you usually need to complete the diploma. To get into the degree courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

The Recruitment and Consulting Services Association offers courses at certificate and diploma levels. The Australian Human Resources Institute also runs tertiary courses. Contact the institutions for further information.

Most universities in Victoria offer degrees in human resource management or psychology. Contact your preferred institution for further details.

### Certificate Courses

**TAFE Victoria - various locations:**

Certificate IV in Human Resources

### Diploma Courses

**TAFE Victoria - various locations:**

Diploma of Human Resources Management

Advanced Diploma of Management - Human Resources

### Employment Opportunities

Recruitment consultants are employed in both the public and private sectors. Positions are regularly advertised in capital city and national newspapers.

Some recruitment consultants also establish their own businesses.

### For Further Information

- Australian Human Resources Institute (National Office)  
☎ (03) 9918 9200 ✉ [reception@ahri.com.au](mailto:reception@ahri.com.au)  
🌐 [www.ahri.com.au](http://www.ahri.com.au)
- RCSA Australia and New Zealand ☎ (03) 9663 0555 or  
1300 727 504 (FREECALL) ✉ [info@rcsa.com.au](mailto:info@rcsa.com.au)  
🌐 [www.rcsa.com.au](http://www.rcsa.com.au)

### Related Jobs

Administrative Assistant (p 54); Human Resources Officer (p 219); Public Servant - Australian Public Service (p 340).

## Recycler ♻️

Also known as Refuse/Recyclable Collector and Scrap Materials Buyer.

Recyclers collect, sort and handle a range of recyclable items such as paper, glass, metals and plastics, which are then processed and prepared for resale.

Recyclers may perform the following tasks:

- separate recyclable items according to type
- work out payment to customers



- manually prepare recyclable products
- operate a forklift
- find markets for sale of products
- deliver products to market for resale
- seek to increase and promote recycling
- assist or provide advice in the development of on-site technology for more efficient handling of recyclable items
- assist or provide advice in minimising and avoiding waste.

With experience and further training, it is possible to progress to supervisory and management positions.

Recyclable products are collected from community groups, commercial hotels and clubs, households and industry.

Recyclers work in conditions that can be dirty and unhygienic.

#### Personal Requirements

- enjoy practical work
- understand the benefits of reducing waste and recycling
- physically fit
- aware of public health and personal hygiene issues.

#### Education and Training

You can work as a recycler without formal qualifications. You will probably get some informal training on the job.

You can also become a recycler through a traineeship in Asset Maintenance (Waste Management). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

You will need appropriate licences to drive vehicles and operate machinery such as forklifts. Truck drivers and recyclers involved in transporting waste products and toxic or flammable substances must also have suitably endorsed licences.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

The recycling industry remains relatively small despite having seen significant growth in recent years due to increased community awareness about the importance of minimising waste and pollution. Employment opportunities depend largely on community awareness of, and participation in, recycling and the cost of re-working recycled materials.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au

#### Related Jobs

Chemical Plant Operator (p 111); Cleaner (p 119); Garbage Collector (p 199); Plastics and Composites Processor (p 324); Truck Driver (p 419).

## Refrigeration and Airconditioning Draftsperson

Also known as Refrigeration and Airconditioning Technical Officer.

Refrigeration and airconditioning draftspersons design and supervise the installation and maintenance of refrigeration and airconditioning systems.

Refrigeration and airconditioning draftspersons may perform the following tasks:

- design and produce relevant working drawings
- supervise the development, construction and testing of complex refrigeration, airconditioning and mechanical services systems
- work in sales, production and quality control.

Refrigeration and airconditioning draftspersons work in conjunction with professional engineers and tradespeople.

#### Personal Requirements

- enjoy technical and design activities
- good at manual work
- enjoy problem solving
- good communication skills
- able to work as part of a team
- willing to accept responsibility and supervise other people
- normal colour vision.

#### Education and Training

To become a refrigeration and airconditioning draftsperson you usually have to complete a diploma or advanced diploma in refrigeration and airconditioning technology. Entry to these courses usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

There are no suitable courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Additional Information

Graduates may be eligible for associate membership of Engineers Australia.

National environmental legislation requires those who work with refrigerant chemicals to possess special handling and/or trading licences issued by the Australian Refrigeration Council. See [www.arctick.org](http://www.arctick.org) for more information.

#### Employment Opportunities

Refrigeration and airconditioning draftspersons are employed mainly by government agencies and installation, service-maintenance and manufacturing firms.

Demand depends on industrial activity and the required level of installation and maintenance of refrigeration and airconditioning systems. The growing awareness of occupational health and safety has led to an increase in the demand for effective and safe airconditioning systems. New technology in refrigerated cold storage has also created employment.

#### For Further Information

- Air Conditioning and Mechanical Contractors' Association of Australia ☎ (03) 8831 2800 ✉ natamca@amca.com.au  
🌐 www.amca.com.au
- Australian Institute of Refrigeration, Airconditioning and Heating Inc (National Office) ☎ (03) 8623 3000 🌐 www.airah.org.au
- EE-Oz Training Standards 🌐 www.ee-oz.com.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au

#### Related Jobs

Electrical Engineering Associate (p 158); Electrician (p 160); Mechanical Engineering Associate (p 264); Plumber (p 324); Refrigeration and Airconditioning Mechanic (p 351).



## Refrigeration and Airconditioning Mechanic

Also known as Refrigeration and Airconditioning Electrotechnologist.

Refrigeration and airconditioning mechanics assemble, install, service and repair industrial, commercial and domestic refrigeration and airconditioning systems in homes, shops, factories, office buildings and hospitals.

Refrigeration and airconditioning mechanics may perform the following tasks:

- follow plans and specifications to install units part by part and bolt them down
- drill holes, install mounting brackets and cut, bend and thread piping
- install parts such as compressors, motors, condensers, evaporators, air filters, switches and gauges, and copper lines for steam, gas, refrigerant, compressed air, fuel, oil and chilled water
- attach piping to refrigeration systems
- work with electricians, pipe fitters and carpenters to install ducting for airconditioning
- check that the parts are lined up and fit properly
- fill systems with gas or fluid and test for leaks
- remove test gas or fluid using vacuum pumps and fill these with refrigerant according to set regulations
- test the unit and make adjustments to make sure that it works correctly
- service faulty industrial and household refrigerators and airconditioning units by repairing or replacing faulty parts.

When carrying out installation work, refrigeration and airconditioning mechanics may work on large commercial and industrial units that have to be installed part by part, or pre-assembled units that simply

require installation. Domestic units come already assembled and usually do not require a tradesperson's services for installation. Refrigeration and airconditioning mechanics may need to be skilled in pipefitting, welding and electrical wiring.

Refrigeration and airconditioning mechanics may have to work extended hours to fix breakdowns and carry out emergency repairs.

### Personal Requirements

- able to work with hand and power tools
- enjoy and have aptitude for technical work
- able to work patiently, systematically and thoroughly
- normal colour vision
- able to work as part of a team
- good communication skills.

### Education and Training

To become a refrigeration and airconditioning mechanic you usually have to complete an apprenticeship in Refrigeration and Airconditioning. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

National environmental legislation requires those who work with refrigerant chemicals to possess special handling and/or trading licences issued by the Australian Refrigeration Council. See [www.arctick.org](http://www.arctick.org) for more information.



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**Air Conditioning and Mechanical Contractors' Association**



Once qualified, refrigeration and airconditioning mechanics need to apply for a licence to undertake electrical work.

#### Employment Opportunities

Refrigeration and airconditioning mechanics are employed mainly by installation, service maintenance and manufacturing firms that service shops, hotels, factories and offices. Some refrigeration and airconditioning mechanics work for firms that specialise in cold storage, food treatment plants and refrigeration on ships. With experience, and sometimes further training, promotion is possible to supervisory, sales, technician, associate, technologist or engineer positions. Some refrigeration and airconditioning mechanics are self-employed.

Opportunities for refrigeration and airconditioning mechanics are affected by the level of building and refurbishment activity, especially in the commercial and industrial sectors.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Australian Institute of Refrigeration, Airconditioning and Heating Inc (National Office) ☎ (03) 8623 3000 ☎ [www.airah.org.au](http://www.airah.org.au)
- Construction and Property Services Industry Skills Council ☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au) ☎ [www.cpsisc.com.au](http://www.cpsisc.com.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)

#### Related Jobs

Automotive Airconditioning Fitter (p 81); Electrician (p 160); Light Vehicle Motor Mechanic (p 250); Refrigeration and Airconditioning Draftsperson (p 350); Vending Machine Servicer (p 428).

## Rehabilitation Counsellor

Rehabilitation counsellors assist people with disabilities to attain individual rehabilitation goals, including return to paid employment.

Rehabilitation counsellors may perform the following tasks:

- counsel clients with regard to adjusting to disability
- undertake comprehensive assessment of the client's vocational, social, medical, personal and psychological needs in order to develop an individual rehabilitation plan
- plan, develop, implement and monitor individual client rehabilitation programs, making sure that appropriate services are provided within these programs
- refer clients for medical examinations and psychological or psychiatric evaluations
- use a variety of assessment tools and strategies to assess a client's particular interests, abilities, skills, motivation, attitude, values and knowledge to establish goals
- provide vocational counselling services to clients with disabilities
- use labour market information when making decisions about a client's vocational choices
- arrange formal or on-the-job training for clients in line with their rehabilitation goals
- check a client's progress in training or employment phases of the rehabilitation program
- evaluate the effectiveness of redeployment and recommend further action
- manage the placement of clients into suitable paid employment or back into the community after coordinating the client's required training
- negotiate and manage a gradual return or introduction to a job to ensure a smooth transition

- talk to insurance companies, medical practitioners and other professionals to ensure all parties are consulted regarding the client's individual rehabilitation program
- provide an information and advisory service to organisations assisting people with disabilities.

Rehabilitation counsellors work as case managers and may be part of a team comprising medical, therapy and related rehabilitation personnel.

#### Personal Requirements

- good communication skills
- good problem-solving skills
- a supportive and tactful approach to people's problems
- able to work independently or as part of a team.

#### Education and Training

To become a rehabilitation counsellor you usually have to study behavioural science, health science or social work at university followed by a postgraduate qualification in rehabilitation counselling studies. To get into these courses you usually need to gain your VCE. Entry to postgraduate courses usually requires completion of an appropriate bachelor degree. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Degrees in behavioural science, health science or social work are offered at most universities in Victoria. For course details, check institution handbooks or see the entries for Psychologist and Social Worker.

#### Additional Information

Graduates may be eligible for membership of the Australian Society of Rehabilitation Counsellors (ASORC) and the Rehabilitation Counselling Association of Australasia (RCAA).

Additional training is also available on the job and through short in-service courses and professional development sessions conducted by ASORC.

#### Employment Opportunities

Rehabilitation counsellors are employed by CRS Australia and other agencies accredited under various compensation and labour market schemes. They may also work in private practice and in the in-house services of large companies.

Demand for rehabilitation counsellors is influenced by government legislation regarding eligibility for benefits and services associated with disabilities.

#### For Further Information

- Australian Society of Rehabilitation Counsellors (National Office) ☎ 1800 643 155 (FREECALL) ✉ [admin@asorc.org.au](mailto:admin@asorc.org.au) ☎ [www.asorc.org.au](http://www.asorc.org.au)
- CRS Australia ☎ 1800 277 277 ☎ [www.crsaustalia.gov.au](http://www.crsaustalia.gov.au)
- Rehabilitation Counselling Association of Australasia ☎ (07) 3821 4275 ✉ [admin@rcaa.org.au](mailto:admin@rcaa.org.au) ☎ [www.rcaa.org.au](http://www.rcaa.org.au)

#### Related Jobs

Art Therapist (p 75); Nurse - Registered (p 296); Occupational Health and Safety Officer (p 298); Occupational Therapist (p 299); Physiotherapist (p 319); Psychologist (p 337); Social Worker (p 373); Speech Pathologist (p 377).



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## Religious Leader

Religious leaders are responsible for the guidance and instruction of the members of their faith, sect or tribe, and associated administrative duties.

The term 'religious leader' covers a range of titles and functions such as Aboriginal ceremonial celebrant, chaplain, imam, minister, missionary, monk, nun, pastor, priest, rabbi, religious brother/sister, religion teacher, religious counsellor and religious youth leader.

Religious leaders may perform the following tasks, which can vary according to the religion and the denomination:

- plan ceremonies and services, including the use of music
- conduct services of public worship and administer sacraments as required
- participate in and contribute to the social and welfare activities of communities
- counsel and encourage people to be aware of their social and religious responsibilities
- provide personal support to people undergoing a crisis such as illness, bereavement or family breakdown
- conduct classes in religious instruction and organise participation in community projects
- supervise prayer and discussion groups, retreats and seminars
- conduct baptisms, marriages, funerals and memorial services
- translate and interpret scripture
- explain and communicate scripture
- keep records as required by civil or church law
- visit the sick and elderly.

Religious leaders work long hours. Extensive travelling may be required. Some may operate as missionaries in isolated areas or overseas. Emotional and physical stress can be associated with the work.

### Personal Requirements

- a deep personal commitment to a particular religious calling
- enjoy working with people
- awareness of the needs of the community
- an understanding of the behaviour and responsibilities expected of religious leaders.

### Education and Training

There are a variety of ways to become a religious leader, such as gaining formal theology qualifications, entry as a specialist in another field (e.g. welfare) and on-the-job experience and training. These arrangements will vary according to the denomination and the nature of the work being sought. Contact the relevant religious organisation for more details on entry requirements.

### Additional Information

The actual tasks and duties carried out by religious leaders differ between religions. Contact the relevant religious organisation for specific tasks descriptions, and training and entry requirements.

## Employment Opportunities

After suitable training, placements are often made available for service in religious institutions, hospitals, prisons, schools, the Australian Defence Force, social welfare organisations and the general community.

Employment opportunities are influenced by the numbers of people involved in religion and attending services, and the range of services offered by religious organisations. While there is evidence of a long-term decline in religious participation in Australia, in recent years interest has increased and new groups have been established. In the traditional denominations, job opportunities may be better for those who are willing to work in country regions.

Overseas work is often available. Opportunities arise in religious and inter-church bodies, or through overseas missionary agencies.

Trained religious leaders often move into other fields in the community, such as welfare. They may also work in different areas of the ministry, for example in youth welfare, music or pastoral care.

### For Further Information

For further information regarding this occupation contact your chosen religious organisation.

### Related Jobs

Social Worker (p 373); Welfare Worker (p 436); Youth Worker (p 442).

## Research Officer

Research officers plan and conduct research into a variety of issues or areas.

Research officers may perform the following tasks:

- telephone members of the public, organisation representatives or special interest groups to gather information
- conduct research using a variety of sources including the internet, journals and publications, or other relevant literature
- collate and write up the results of their research for statistical or publication purposes
- collect and analyse biological, meteorological or other types of data or samples for scientific study
- study long and short term trends in population growth and health, in the areas of biological, medical and health research
- study the behaviour of animals for the purposes of zoological research
- study economic or social trends in order to develop policy
- perform administration, record keeping or statistical tasks related to research
- pursue funding for further research.

With experience and sometimes further study, promotion to managerial positions is possible.

Research officers can work in a wide variety of fields including medical, biological, educational, social, academic, economic, mathematical, operations research and political areas.

### Specialisation

**Operations Researcher** - develops methodologies for analysing and solving problems in government, business and industry, often using mathematical tools, statistical analysis and computers.

### Personal Requirements

- enjoy research
- able to analyse and collate information
- good oral and written communication skills
- able to work as part of a team



- able to manage workload and meet deadlines
- good organisational skills.

#### Education and Training

To become a research officer you usually have to complete a degree at university with a major that is relevant to the field in which you wish to research. Research can be conducted into any field of learning, but you could consider studies in operations research, mathematics, economics, Indigenous studies, political science, arts, biology, medicine, science and geology.

To get into these courses, which are widely available at universities, you will need to gain your VCE. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

#### Employment Opportunities

Research officers are employed by federal, state and territory government departments and organisations as well as trade unions, political parties, universities and non-profit organisations. Some are employed by private sector organisations that provide consultancy services to other organisations.

Employment prospects for researchers are dependent on the level of funding available in their chosen areas. Work is casual or part time in many cases, although full-time positions do exist in some government departments and universities.

For more information on joining the public service see the separate entries for Public Servant - Australian Public Service and Public Servant - State Government.

#### For Further Information

- Australian Society for Operations Research ☎ (07) 3138 1029  
✉ [e.kozan@qut.edu.au](mailto:e.kozan@qut.edu.au) 🌐 [www.asor.org.au](http://www.asor.org.au)
- Careers with the Victorian Government 🌐 [www.careers.vic.gov.au](http://www.careers.vic.gov.au)

#### Related Jobs

Archivist (p 72); Economist (p 154); Foreign Affairs and Trade Officer (p 191); Market Researcher (p 257); Political Scientist (p 328); Public Servant - Australian Public Service (p 340); Public Servant - State Government (p 341); Sociologist (p 374); Statistician (p 383).

### Retail Buyer

Retail buyers purchase goods to be sold in retail stores. They may purchase goods locally, interstate or overseas.

Retail buyers may perform the following tasks:

- obtain information from store executives, salespeople and sales records data about stock levels and fast- and slow-moving goods
- consider which goods will sell well in particular locations, and what prices customers are prepared to pay
- research customer demands and trends by processing store sales and inventory reports
- manage and analyse stock levels and order points using computers and statistics
- try to anticipate changes in customer demand for particular goods, as goods must be purchased well before their sale to customers
- inspect, compare and select goods at manufacturers' or agents' premises
- contact suppliers to replenish stocks
- be aware of relevant legal information, such as consumer rights and store licensing
- communicate frequently with store management to discuss planning, budgeting, sales promotions and advertising campaigns

- attend trade fairs and other displays interstate and overseas to obtain information about the range of products available.

With experience and sometimes further training, it is possible to become a supervisor or manager.

In large department stores, buyers may specialise in certain types of merchandise (e.g. textiles, fashion, hardware or toys). In a national chain of stores, such specialist buyers may purchase merchandise for all stores, or nominate brands to be stocked.

In small businesses, owners normally do their own retail buying after consultation with their staff.

#### Personal Requirements

- enjoy clerical and administrative activities
- strong analytical skills
- knowledge of, or an interest in, the retail market
- good communication skills
- good negotiating skills
- good planning and organisational skills
- good with numbers
- willing to travel.

#### Education and Training

You can work as a retail buyer without formal qualifications. Buyers usually begin as sales staff and are selected for advanced training in retailing. Usually only experienced sales staff are appointed to buying positions. You will probably get some informal training on the job.

However, entry to this occupation may be improved if you have qualifications in retail, fashion, marketing or other related fields. Diplomas and degrees in these disciplines are widely available. To get into these courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

It is also possible to complete a traineeship in Retail Management. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Retail buyers are employed by department stores, retail chains and smaller retail shops. Most large and medium retailers, which are usually located in the capital cities, have teams of buyers.

Experienced buyers can become self-employed, offering their services on a freelance basis.

#### For Further Information

- Australian Retailers Association (National Office) ☎ 1300 368 041  
✉ [info@retail.org.au](mailto:info@retail.org.au) 🌐 [www.retail.org.au](http://www.retail.org.au)
- National Retail Association ☎ 1800 738 245 ✉ [info@nra.net.au](mailto:info@nra.net.au)  
🌐 [www.nra.net.au](http://www.nra.net.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)

#### Related Jobs

Fashion Coordinator (p 174); Importer and Exporter (p 221); Sales Assistant (p 358); Sales Representative (p 359).

### Rigger

Riggers assemble and install rigging gear such as cables, ropes, pulleys and winches to lift, lower, move or position machinery, structural steel and other heavy objects.



Riggers may perform the following tasks:

- examine objects to be moved, estimate their size, shape and weight and decide on the type of equipment necessary to move them
- erect a temporary jib or derrick (lifting devices) if required, and install cables, pulleys and other tackle
- choose or make slinging equipment and attach it to the load
- erect cranes and mobile crane booms, and increase the height of tower cranes by bolting component parts in place and rigging cables
- splice ropes and cables to make slings and tackle
- erect structural steel for buildings or plants under construction
- erect precast-concrete panels used on facades of buildings
- inspect, maintain and repair equipment
- make sure that safety requirements are met at all times.

Riggers mainly work outdoors on construction sites, but can also work on ships, in factories and mines, and in the entertainment industry in setting up stages, etc.

#### Specialisation

**Dockside Rigger** - splices and braids rope and wire to manufacture a range of safety products such as cable stockings and hose restraints for high pressure hoses and pipes; embarkation ladders and gangway nets; and cargo and safety nets for lifting cargo to and from ships. Dockside riggers may work in commercial factories or on site, assembling and installing rigging equipment in shipyards and dockside loading facilities.

#### Personal Requirements

- enjoy practical outdoor work
- physically fit
- able to work at heights
- good with hands
- able to work as part of a team.

#### Education and Training

To become a rigger you usually have to obtain a licence to Perform High Risk Work issued by WorkSafe Victoria. To obtain this licence, you will need to work under the supervision of a licensed operator and keep an approved logbook to record competencies achieved during training. Assessment by an independent assessor will then be required. The High Risk Work Licence is issued under the National Standard for Licensing Persons Performing High Risk Work.

#### Additional Information

You must be 18 years of age to be eligible to obtain a High Risk Work Licence. However, training may commence at a younger age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and Services Integrated Framework that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Riggers are usually employed by building and construction firms, building industry subcontractors and contract-labour hire firms. Mobility between associated occupations such as crane driver and scaffolder is possible, provided the relevant licence to Perform High Risk Work is obtained. Due to the greater earnings available, some riggers undertake crane driving during periods of high building activity.

#### For Further Information

- Construction, Forestry, Mining and Energy Union - Construction and General Division (VIC) ☎ (03) 9341 3444  
✉ queries@vic.cfmeu.asn.au 🌐 www.cfmeuvic.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ mbassist@mbav.com.au 🌐 www.mbav.com.au

#### Related Jobs

Construction Worker (p 127); Crane Operator (p 136); Dogger (p 151); Scaffolder (p 361); Steel Fixer (p 384); Waterside Worker (p 434).

## Road Worker

Also known as Civil Construction Worker and Road Infrastructure Worker.

Road workers compact, level and spread materials to form roads and footpaths, perform minor repairs to damaged surfaces, maintain bridges, and repair signs and guideposts. Road workers also undertake general roadside maintenance such as grass cutting, weed control and litter collection.

Road workers may perform the following tasks:

- clear scrub, strip grass and remove topsoil
- assist with preparation for laying drains
- spread gravel to form the road base
- operate tank-truck distributor or hose to spray tar, road oils and emulsions on the road before surfacing
- operate paving machines or spread stone chips, gravel or asphalt onto road surfaces
- erect and dismantle barricades and construction signs
- direct traffic through the construction area
- load and unload equipment and clean the work site
- calculate the quantities for ordering materials
- landscape surrounding areas with trees and grass seed.

With experience and sometimes further training, it is possible to progress to more specialised tasks and/or supervisory positions.

Road workers may work as members of a small roadwork team.

#### Personal Requirements

- enjoy practical and outdoor work
- physically fit
- good hand-eye coordination
- able to work as part of a team.

#### Education and Training

To become a road worker, you usually have to complete a traineeship in Civil Construction, Bituminous Surfacing or Road Construction and Maintenance. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Civil Construction Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Road workers are employed by civil contractors (infrastructure contractors), government roadwork authorities and local councils.



#### For Further Information

- Civil Construction Careers ☎ [www.civilconstructioncareers.com](http://www.civilconstructioncareers.com)
- Civil Contractors Federation (VIC) ☎ (03) 9819 5170  
✉ [ccfvic@civilcontractors.com](mailto:ccfvic@civilcontractors.com) ☎ [www.civilcontractors.com](http://www.civilcontractors.com)
- The People Services, VicRoads  
✉ [workexperience@roads.vic.gov.au](mailto:workexperience@roads.vic.gov.au)  
☎ [www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au)

#### Related Jobs

Concreter (p 126); Construction Worker (p 127).

## Roofer

Also known as Shingler, Slater, Steel Roof Installer and Roof Tiler.

Roofers cover houses and other structures with roof tiles, slates, shingles or steel sheeting to form waterproof surfaces.

Roofers may perform the following tasks:

- look at drawings, specifications and work sites to determine materials required
- assess risks
- erect ladders and tile elevators
- erect and dismantle restricted height scaffolding
- place roofing underlays over eaves and secure by nailing or stapling to roofs
- correctly space and nail wooden strips called battens across the roof rafters on which the tiles or other roofing material will be placed
- lay aluminium, steel or clay tiles, stone slates, wooden shingles or steel sheeting
- install metal gutters, downpipes and other rainwater products
- overlap successive layers of tiles and measure and cut roofing material to fit around vents, chimney edges, and the hips and valleys of the roof
- fix roof flashings (weatherproof covering)
- fix the ridge caps and gable ends with cement mortar or tech screws
- handle waterproofing materials, tools and equipment
- apply protective paint coating systems
- clear the roof of debris when the job is finished.

Roofers may specialise in tiling or installing new roofs, repairing existing roofs or removing old roofs and replacing them.

Roofers' work involves a lot of bending, climbing and lifting. They work outdoors, at heights, in all weather conditions.

#### Personal Requirements

- enjoy practical and manual work
- good sense of balance
- good hand-eye coordination
- willing to work at heights and outdoors.

#### Education and Training

To become a roofer you usually have to complete an apprenticeship in Roof Tiling. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

In some states and territories, steel roofing falls under the category of plumbing, which requires a licensed contractor. See the separate entry for Plumber, and refer to your local authority for advice.

Industry standards require roofers to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To gain a licence, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, and keep an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence, you will need to be at least 18 years of age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

#### Employment Opportunities

Many roofers are self-employed or work for small companies that supply and fix roofs. They are usually sub-contracted to the roofing manufacturers on a semi-permanent basis. Roofers are also directly employed by manufacturing companies and by state or local government bodies concerned with public works.

#### For Further Information

- Career in Steel Roofing ☎ [www.careerinsteel.com.au](http://www.careerinsteel.com.au)
- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
☎ [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) ☎ [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) ☎ [www.mbav.com.au](http://www.mbav.com.au)

#### Related Jobs

Bricklayer (p 93); Carpenter (p 105); Plumber (p 324); Tiler - Wall and Floor (p 406).

## Room Attendant

Room attendants clean and maintain rooms in hotels, motels and other places of accommodation.

Room attendants may perform the following tasks:

- check that rooms have been vacated before cleaning
- make beds daily and change bed linen
- vacuum carpets, floors and upholstery
- clean bathrooms and supply with fresh towels and toiletries
- check and re-stock tea, coffee, sugar, milk and mini bar supplies
- make sure that televisions, radios, lights and airconditioning equipment are working
- report to a supervisor when articles are left behind by guests, if there is damage to rooms, or any items appear to have been stolen
- take laundry and dry cleaning orders from guests.

With experience and sometimes further training, it is possible to progress to supervisory levels and to the position of executive housekeeper.

Working conditions and hours vary greatly, depending on where room attendants work. The work is not usually physically demanding, but lifting, carrying and bending are involved.

#### Personal Requirements

- enjoy practical work
- neat personal appearance
- good personal hygiene
- honest and reliable
- physically fit
- able to stay calm in difficult situations.



## Education and Training

You can work as a room attendant without formal qualifications. You will probably get some informal training on the job.

You can also become a room attendant through a traineeship in Asset Maintenance (Cleaning Operations) or Hospitality. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Asset Maintenance or Hospitality Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

Room attendants are employed by individual hotels, motels or guest houses, or by companies that operate a chain of establishments. Most room attendants work in capital cities and surrounding suburbs and in those country centres where there are tourist resorts.

Demand for room attendants depends on growth in the tourism and travel industries and on the general level of economic activity. As turnover is relatively high, there is generally a constant demand to replace those leaving the job.

## For Further Information

- Australian Hotels Association (National Office) ☎ (02) 6273 4007  
✉ aha@aha.org.au 🌐 www.aha.org.au
- Service Skills Australia 🌐 www.serviceskills.com.au
- Tourism Training Australia ☎ (02) 9286 3944  
✉ reception@tourismtraining.com.au  
🌐 www.tourismtraining.com.au

## Related Jobs

Caravan Park Attendant (p 103); Cleaner (p 119); Ship's Catering Attendant (p 369).

## Rubber Processor

Also known as Rubber Production Machine Operator.

Rubber processors operate machines and perform related duties to manufacture rubber products such as tyres and reinforced hoses.

Rubber processors may perform the following tasks:

- select appropriate material for processing as per specification
- set controls and check the production machine before starting
- load raw materials
- operate machines in accordance with safety requirements
- mark out patterns from blueprints and cutting sheets
- monitor instruments and adjust controls to regulate the speed and temperature of rubber processing machines
- sandblast non-rubber surfaces
- remove wrinkles and trapped air in rolled products
- maintain consistent operation of output
- check the quality of products and take part in quality improvement activities
- report defects and carry out minor repairs
- keep production records and quality assurance data.

Rubber processors work in factories and may be required to do shift work. They may have to handle dirty items. In some factories the equipment is computer-controlled. The use of safety equipment and lifting devices to move heavy items is required in some areas.

## Specialisations

**Rubber Extruder Operator** - operates rubber extrusion machinery to extrude (press out) rubber materials into finished products or components.

**Rubber Injection Moulding Machine Operator** - operates injection moulding machinery to mould formulated rubber materials into finished products or components.

**Rubber Knitting Machine Operator** - operates machines to knit and cement fabric cord or wire around rubber hoses for reinforcement.

**Rubber Moulding Machine Operator** - operates compression moulding machinery to mould compounded rubber materials into finished products or components.

**Rubber Roll Builder** - builds up layers of rubber on metal cores for use as rollers.

**Rubber Roller Grinder Operator** - sets up and operates roller grinders to produce rubber rollers.

**Tyre Production Machine Operator** - builds raw tyres, retreads new tyres and vulcanises them.

## Personal Requirements

- enjoy practical and manual work
- good communication skills
- enjoy working with figures
- able to work neatly and accurately
- good health and eyesight
- no allergies to rubber compounds, powder and dust.

## Education and Training

You can work as a rubber processor without formal qualifications. You will probably get some informal training on the job.

You can also become a rubber processor through a traineeship in Polymer Processing or Process Manufacturing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Manufacturing or the Plastics, Rubber and Cablemaking Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

Rubber processors are employed in factories and by tyre manufacturers. Some tyre distributors have tyre retreading, recapping and repair facilities where rubber workers are also employed. A large proportion of the rubber industry is involved in the manufacture of component parts for motor vehicles.

As new technologies and processes change the way companies operate, people with good practical and problem-solving skills are keenly sought after.

## For Further Information

- Australian Industry Group 🌐 www.zoomplus.aigroup.asn.au
- Manufacturing Skills Australia 🌐 www.makeit.net.au

## Related Jobs

Chemical Plant Operator (p 111); Plastics and Composites Processor (p 324).



# S

## Sales Assistant

Sales assistants sell goods to customers in retail and wholesale establishments.

Sales assistants may perform the following tasks:

- advise customers on the location, selection, price, delivery, use and care of goods available from the store, with the aim of encouraging them to buy and to return to buy in the future
- operate cash registers and accept payment, or prepare finance arrangements (e.g. invoices and contracts)
- take special orders for items not currently in stock, or not normally stocked, and notify customers when the items have arrived
- package goods for customers and arrange delivery
- price, stock and display items for sale, and keep the store tidy and attractive
- be aware of health, safety and welfare issues and practices
- participate in stocktaking (counting and describing the goods in stock)
- arrange for the repair of damaged goods, or advise on needed repairs
- order items.

Some sales assistants work on a commission basis, which means that they are paid for each product, or number of products, that they sell. Sales assistants are on their feet most of the day attending to customers, finalising sales and tidying display units. They may work long hours and be required to work at night and on weekends. Staff usually work on rosters.

### Specialisations

**Car Salesperson** - sells new or used cars in showrooms or car yards. They may demonstrate to customers how a car operates and take customers for short test-drives. They may arrange vehicle trade-ins, prepare paperwork for sales and arrange finance and insurance. They should know the special features of vehicles they are selling and be able to compare various makes of cars. Car salespeople generally start as cadets, or junior salespeople, performing duties such as registering cars. Car salespeople need to have a suitable car drivers licence.

**Computer Salesperson** - considers the current and future computing needs of the customer. They propose computer hardware and/or software systems to meet those needs. This may include organising demonstrations. When a sale has been made, computer salespeople arrange delivery and may organise installation of the unit and training of operators.

**Cosmetic Consultant** - advises on, and demonstrates, the correct use of cosmetics. They classify skin types (normal, dry or oily), taking into account a customer's age, facial structure and colouring. They then recommend particular products, including medicated make-up, and methods of applying cosmetics to enhance the customer's appearance. Cosmetic consultants with strong creative abilities may work for theatrical companies, TV studios or fashion magazines.

**Delicatessen Assistant** - sells foods such as sausages, smoked meats, salads, cheese, fish, olives and other specialist lines. They arrange products in attractive displays and may make and sell lunches. Delicatessen assistants may work in small shops or large supermarkets with delicatessen sections.

**Electrical Goods Sales Assistant** - sells household products and electrical equipment such as fans, heaters, food mixers, sewing machines, radios, televisions, sound systems and video recorders. They must have sound knowledge of the products they sell. They advise customers about features such as controls, wattage and power, as well as demonstrate and compare products.

**Fashion Sales Assistant** - sells clothes and other fashion items in department stores, fashion boutiques and retail warehouses. They may advise customers on fashion trends, suitable styles and colours and assist with store displays.

**Fast Food Sales Assistant** - works in large or small outlets preparing and selling food, drinks and other products. They may prepare food for cooking, make dough or batter, spread butter on bread, chop, cut or slice fillings, and prepare salads. In fast food chain stores, sales assistants may work at the counter or in the kitchen. Where dining areas are provided, they may also clear tables, wash utensils and clean floors and windows.

**Hardware Sales Assistant** - works in retail businesses which supply and sell a range of hardware goods such as lengths of timber, paint, brushes, hand tools, screws, nails, tap washers and other general house maintenance requirements. They may have to demonstrate tools and explain how products work.

**Pharmacy Sales Assistant** - works with pharmacists in chemist (pharmacy) shops. They assist customers in choosing a range of products, including cosmetics, toiletries, hair products and medicinal products (e.g. cough mixtures, cold and headache tablets). They also refer prescriptions to the pharmacist to prepare.

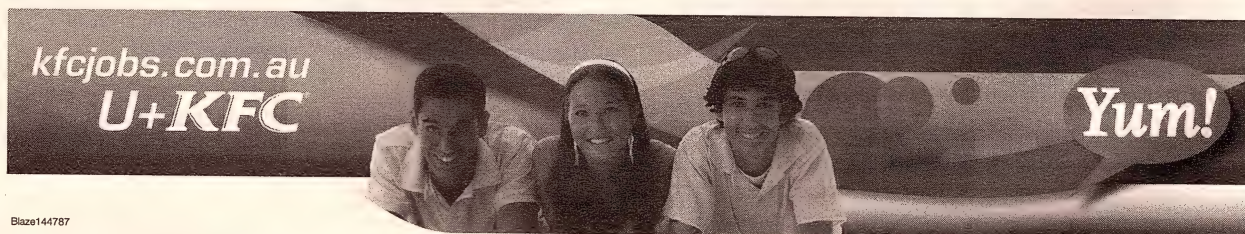
**Seafood Sales Assistant** - cleans and prepares fish and other seafood for sale in a shop or fish market. They serve customers and provide advice on the available seafood, and on ways to cook and prepare it.

**Shelf Filler (Night)** - works in retail stores and is responsible for ensuring that shelves and product displays remain stocked. Shelf fillers rotate stock on the shelves, ensuring that products with earlier use-by dates are at the front and removing those that have passed this date. Many shelf fillers work after hours, tidying the store after the day's trading and ensuring that shelves are fully stocked for when the store reopens in the morning.

**Retail Manager** - plans and coordinates the operations of retail outlets. They manage staff, respond to customer complaints, control the level, price and presentation of stock, monitor finances and budgets, and oversee security systems.

### Personal Requirements

- enjoy working with people
- a helpful, courteous manner



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- neat personal appearance
- good communication skills
- able to deal accurately with money
- motivation and drive
- no skin disorders if working with food
- good problem solving skills
- willing to work as part of a team.

### Education and Training

You can work as a sales assistant without formal qualifications. You will probably get some informal training on the job.

You can also become a sales assistant through a traineeship in Retail or Automotive Sales. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Retail or Automotive Retail, Service and Repair Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

The retail industry employs large numbers with a high staff turnover. There is potential for advancement in retailing for those showing initiative, enthusiasm and willingness to learn.

### For Further Information

- Australian Retailers Association (National Office) ☎ 1300 368 041  
✉ info@retail.org.au 🌐 www.retail.org.au
- Pharmacy Guild of Australia ☎ (03) 9810 9999  
✉ nationaltraining@guild.org.au 🌐 www.guild.org.au/training
- Service Skills Australia 🌐 www.serviceskills.com.au

### Related Jobs

Bicycle Technician (p 87); Car Rental Officer (p 102); Cashier (p 107); Dispensary Technician (p 148); Florist (p 187); Gaming Worker (p 199); Interior Decorator (p 233); Newsagent (p 293); Pharmacist (p 315); Postal Employee (p 329); Retail Buyer (p 354); Sales Representative (p 359); Service Station Attendant (p 366); Telemarketer (p 401); Ticket Seller (p 405); Usher (p 424); Weight Loss Counsellor (p 436).

## Sales Representative

Also known as Commercial Traveller.

Sales representatives sell goods and services to industry, business and professional establishments, and to wholesale or retail outlets.

Sales representatives may perform the following tasks:

- visit clients to demonstrate products, show samples and take orders
- arrange a calendar of visits to major potential buyers by contacting people and making appointments
- develop and update knowledge of their own and their competitors' products
- speak with other sales and marketing personnel in their company to work out the best methods of promoting products
- establish customers' needs and explain and demonstrate products to them, which may involve technical descriptions of products and how they may be used
- quote and negotiate prices and credit terms, prepare contracts and record orders

- report to employers on sales and provide feedback on the marketing of new or established products
- carry out formal presentations of products using videos and other training aids, attend promotional markets and organise product displays
- work on telemarketing campaigns
- plan to meet sales targets and budgets
- use e-business technology.

Sales representatives spend a lot of time travelling from one location to another, including country and interstate locations. Meeting sales targets and budgets can be stressful.

### Specialisations

**Building and Plumbing Supplies Representative** - promotes and sells hardware and supplies. Products may include paint, plaster, builders' tools, wire, timber, wood products and plumbing and electrical supplies.

**Business Services Representative** - promotes and sells credit information, debt collection services, business publication subscriptions, databases, advertising or other business or financial services.

**Chemical Sales Representative** - sells basic chemicals and chemical products to all sectors of the manufacturing industry and to the farming sector. Chemical representatives provide technical advice to customers and relay the feedback from customers to production chemists or quality control chemists.

**Insurance Sales Representative** - helps individuals and businesses to understand their insurance needs, explains their options to them and assists them in purchasing appropriate insurance policies. Insurance sales representatives can work in property, casualty, life or health insurance.

**Motor Vehicle Parts and Accessories Representative** - promotes and sells motor vehicle parts and accessories to retail or wholesale establishments.

**Personal and Household Goods Representative** - promotes and sells consumer products such as toys, sporting goods, stationery, floor coverings, textiles, footwear, photographic equipment, toiletries and other household and personal goods.

**Pharmaceutical Representative** - promotes, takes orders for, and sells such products as over-the-counter and prescription drugs, and medical equipment ranging from sticking plasters, tubing, and pacemakers to diagnostic equipment. Pharmaceutical representatives need to be aware of federal and state/territory legislation governing advertising and promotion of medicines.

**Sales Demonstrator** - displays and demonstrates goods at commercial premises, exhibitions or private homes, and answers questions and offers advice on the use of products. In retail outlets, a sales demonstrator may arrange stock and make sure that it is attractively presented for sale. They may also take orders, arrange payment and delivery or collection, and distribute catalogues and advertising material.

### Personal Requirements

- enjoy working with people
- friendly and confident manner with a pleasant personality
- able to work without direct supervision
- able to clearly present product and service information
- good personal presentation
- excellent communication skills.



### Education and Training

You can work as a sales representative without formal qualifications. You will probably get some informal training on the job. However, your employment prospects may be improved if you have sales qualifications.

Costs, duration and entry requirements may vary between courses. See the online entry for Sales Representative at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

To work as a sales representative in a specialised or technical area, you will usually need to undertake post-secondary study in that area. For example, chemical sales representatives often need tertiary or technical qualifications, plus experience, in fields such as science or engineering to work in industrial chemical sales.

You can also become a sales representative through a traineeship in Wholesale or Business Sales. Entry requirements may vary, but employers generally require you to gain your VCE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

A drivers licence is usually required.

It may also be worth gaining experience in sales through working in a selling environment such as retail. This provides an opportunity to become familiar with the product being sold, as well as developing an understanding of the basics of selling and an insight into the needs of clients.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Retail or Business Services Training Packages, that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Sales representatives are employed by retail, wholesale, insurance and manufacturing organisations which are usually located in large cities. They may be required to cover city, suburban or country areas, or in some cases, interstate or overseas territories.

When taking on a sales position, make sure that you understand the terms of employment. Some jobs are paid on a 'commission only' basis. Other jobs offer a 'guaranteed' income, but this payment may be advanced against future commission earnings, and could be reclaimed by the employer when you leave. If you are employed as a sub-contractor, you will effectively be in business for yourself, with no entitlements to sick pay, annual leave or other benefits.

### For Further Information

- Australian Retailers Association (National Office) ☎ 1300 368 041  
✉ [info@retail.org.au](mailto:info@retail.org.au) 🌐 [www.retail.org.au](http://www.retail.org.au)
- National Retail Association ☎ 1800 738 245 ✉ [info@nra.net.au](mailto:info@nra.net.au)  
🌐 [www.nra.net.au](http://www.nra.net.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)

### Related Jobs

Advertising Account Executive (p 55); Fashion Coordinator (p 174); Importer and Exporter (p 221); Insurance Agent (p 230); Market Researcher (p 257); Marketing Officer (p 257); Retail Buyer (p 354); Sales Assistant (p 358); Sales Representative (Information Technology) (p 360).

## Sales Representative (Information Technology)

Also known as IT Account Manager, IT Applications Consultant, IT Sales Consultant, Marketing Officer (IT) and Software Consultant.

Sales representatives (IT) promote the sale of computer hardware, software and IT services.

Sales representatives may perform the following tasks:

- create customer interest in the organisation's IT products
- talk to clients and potential clients to work out the hardware and software needs of their business
- keep customers informed of new product developments
- create appropriate systems for customers' needs, including software and hardware options
- develop proposals and IT solution cost options for customers
- manage the sourcing and delivery of products to the customer
- provide after-sales support
- participate in product development, marketing and client education activities
- talk to IT technical experts, such as analysts, designers, programmers and educators
- perform continuous updates of own knowledge of products.

### Personal Requirements

- personable and well presented
- good communication skills
- perseverance
- able to understand clients' needs quickly
- willing to update product knowledge on an ongoing basis
- able to understand and provide information on a large variety of product specifications and applications
- strong customer service skills.

### Education and Training

To become a sales representative you usually have to complete a certificate or diploma in information technology, as well as have work experience in the information technology area. However, entry to this occupation may be improved if you have a degree in information technology. Entry to the certificate courses usually requires Year 10. Entry to the diploma and degree courses usually requires you to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Relevant certificate and diploma courses are widely available. Degree courses in these areas are also widely available at most universities in Victoria. Check institution handbooks for course information.

Costs, duration and entry requirements may vary between courses. See the online entry for Sales Representative (IT) at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a sales representative through a traineeship in Information Technology. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Memberships with the Australian Computer Society are available to those who hold, or are working towards, suitable qualifications. There is a range of membership types available allowing a progression through the various levels as a member's career develops.



## Employment Opportunities

Sales representatives usually work in IT retailing and wholesaling and for IT service providers.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ info@acs.org.au 🌐 www.acs.org.au

### Related Jobs

Analyst (Information Technology) (p 65); Information Technology Educator (p 228); Information Technology Support Technician (p 229); Programmer (Information Technology) (p 335); Sales Representative (p 359); Web Designer/Developer (p 435).

## Saw Doctor

Saw doctors make, repair, maintain and sharpen a wide range of cutting tools and saw blades. They also maintain mechanical parts of a range of production machines.

Saw doctors may perform the following tasks:

- manufacture saw blades from blank sheets or strips of steel
- straighten and stretch steel in circular and band saws
- operate hand and power tools, machines and mechanical equipment
- mill, grind, press or sharpen cutting tools
- weld tools, saws and cutting edges
- manufacture and/or maintain the straightness and balance in all cutting tools and saw blades
- use hand skills to manipulate machines to sharpen saws and cutting tools so that they produce the required surface finish on sawn or milled products
- maintain a range of mechanical parts on sawing machinery used in timber processing.

### Personal Requirements

- enjoy practical and manual work
- safety conscious
- physically fit
- normal vision and hearing
- good hand-eye coordination.

### Education and Training

To become a saw doctor you usually have to complete an apprenticeship in Sawdoctoring. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Saw doctors work for saw manufacturers, saw service shops, machining shops, woodworking factories, large timber mills and other industries which use sawing equipment. Self-employment is possible, particularly in saw blade and cutting tool maintenance.

### For Further Information

- ForestWorks ☎ (03) 9321 3500  
✉ forestworks@forestworks.com.au  
🌐 www.forestworks.com.au

### Related Jobs

Engineering Tradesperson - Mechanical (p 165); Timber and Wood Production Worker (p 406); Wood Machinist (p 439).

## Scaffolder

Scaffolders erect and dismantle scaffolding to provide work platforms on building or industrial sites, or for temporary structures such as stages, seating and catwalks.

Scaffolders may perform the following tasks:

- check requirements from drawings and written instructions, select materials and set ground levels
- fit together steel pipes, support braces and clamps to form bases for scaffolds
- lift and position sections of scaffolding and bolt pipes together to build up scaffolding
- place planks over horizontal bars to create platforms
- check levels in scaffolding structures
- use prefabricated scaffolding when available
- dismantle scaffolding at the completion of a job.

With experience and sometimes further training, it is possible to become a rigger. See the separate entry for Rigger.

Scaffolders work mostly outdoors, at a variety of locations and in most weather conditions.

### Personal Requirements

- enjoy practical and manual activities
- physically fit
- able to work at heights
- a sense of balance
- good hand-eye coordination
- able to work as part of a team
- at least 18 years of age.

### Education and Training

To become a scaffolder you will need to obtain a licence to Perform High Risk Work issued by WorkSafe Victoria. To gain a licence, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, keeping an approved logbook to record competencies achieved during training. Assessment by an independent assessor will then be required. The High Risk Work Licence is issued under the National Standard for Licensing Persons Performing High Risk Work.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment. To obtain a licence, you will need to be at least 18 years of age.

### Additional Information

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and Services Integrated Framework that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Scaffolders are mainly employed by construction firms and related sub-contractors. Job prospects depend on the level of activity in the construction industry and can fluctuate. A small amount of work is generated from other areas which require erection of scaffolding (e.g. entertainment, building maintenance and cleaning work).



#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ mbassist@mbav.com.au 🌐 www.mbav.com.au

#### Related Jobs

Construction Worker (p 127); Dogger (p 151); Rigger (p 354); Steel Fixer (p 384).

### Science Field Officer

Science field officers perform support functions in the field by making observations, collecting and analysing samples, recording information, and looking after the practical tasks involved in supplying a remote field operation.

Science field officers may perform the following tasks:

- order, check, pack and ship equipment and supplies for field surveys
- manage small field camps, and in some cases cook for very small groups
- collect, record and transport samples of rock, soil and water
- sort information collected from a range of samples and carry out computer processing of the data
- assist with all aspects of supporting personnel in the field
- maintain collections and a wide range of equipment.

Science field officers are required to spend long periods working in remote locations throughout Australia.

Science field officers may specialise in a number of different areas such as agriculture, environment, forestry, geoscience and marine science.

#### Specialisation

**Geoscience Field Officer** - works alongside geoscientists in the various aspects of mineral, oil and gas exploration. They may work on drill sites and participate in field geophysical surveys.

#### Personal Requirements

- enjoy scientific activities
- able to prepare accurate records and reports
- able to work as part of a team
- physically fit
- willing to work in remote locations.

#### Education and Training

To become a science field officer you usually have to complete a certificate or diploma in mining and/or exploration related areas. Entry to the certificate course below usually requires Year 10. Entry to diploma courses usually requires completion of Year 11 or your VCE. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may also gain skills relevant to this occupation by completing a laboratory course. See the Laboratory Worker profile for details.

There are no suitable diploma courses available in Victoria. Courses are available interstate. For full details, refer to the interstate entries on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Certificate Courses

**Bendigo Regional Institute of TAFE - Bendigo Campus:**  
Certificate II in Mining Field/Exploration Operations

#### Additional Information

A current drivers licence is usually required. In addition, applicants may need to be 18 years of age or older and/or hold a Heavy Rigid drivers licence.

#### Employment Opportunities

Science field officers may work for mining and exploration firms and government agencies in a variety of science areas.

Science field officers may progress to such roles as technical assistants and technical officers. They may also be involved in laboratory work. Many officers work on a contracted basis as demand is seasonal. Job opportunities also largely depend on the level of activity in scientific research. Competition is very strong for available entry positions.

#### For Further Information

- CSIRO Careers ☎ 1300 301 509 ✉ csiro-careers@csiro.au  
🌐 www.csiro.au/people/careers
- Geological Society of Australia ☎ (02) 9290 2194  
✉ info@gsa.org.au 🌐 www.gsa.org.au
- The Australasian Institute of Mining and Metallurgy (National Office) ☎ (03) 9662 3166 ✉ careers@ausimm.com.au  
🌐 www.ausimm.com.au
- The Australian Institute of Geoscientists ☎ (08) 9427 0820  
✉ aig@aig.asn.au 🌐 www.aig.org.au

#### Related Jobs

Agricultural Technical Officer (p 58); Forest Technical Officer (p 192); Geoscience Technician (p 205); Laboratory Worker (p 240); Meteorological Technical Officer (p 272); Survey Assistant (p 387); Surveying Technician (p 388).

### Screen Printer/Stencil Preparer

Screen printers set up and operate power-driven or hand-operated screen printing machines to create visual images.

Screen printers may perform the following tasks:

- prepare stencils to be printed by handcutting, photographic or electronic methods
- choose, mix and match coloured inks and load ink into printing machines
- load paper, fabric, plastic or other material onto printing machines, making sure that objects to be printed are lined up correctly and, if there is more than one colour, that the colours are properly aligned
- control machines and check the quality of printing
- keep records of work completed
- put the stencils onto a mesh fabric-printing screen and operate the printing machine, then dry the printed items by loading them into drying racks or dryers using hot air or ultraviolet light
- unload printed items from drying racks and stack them
- remove waste, clean and maintain machines, and maintain and care for equipment including camera lenses, screens, stops and filters.

#### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected) with normal colour vision
- good hand-eye coordination
- creative
- self-motivated
- good problem solving skills.



## Education and Training

To become a screen printer you usually have to complete an apprenticeship in Printing and Graphic Arts (Screen Printing). Entry requirements may vary, but employers generally require Year 10. You may need to present a folio of previous screen-printing work.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Employment Opportunities

Screen printers are employed by fabric/textile printers, sign shops, industrial printers, promotion/display companies and general screen printers. Some are self-employed.

There is strong competition for apprenticeship positions. However, the graphic arts industry also offers career opportunities in administration, sales, planning and estimating, art and design, and paper and ink technology.

## For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Printing Industries Association of Australia (National Office)  
☎ (02) 8789 7300 or 1800 227 425 (FREECALL)  
✉ [info@printnet.com.au](mailto:info@printnet.com.au) ☎ [www.printnet.com.au](http://www.printnet.com.au)

## Related Jobs

Binder and Finisher (p 87); Graphic Prepress Tradesperson (p 207); Printing Hand (p 331); Printing Machinist (p 332); Signmaker (p 372).

## Seafood Processor

Seafood processors scale, clean, fillet, cut, shell, grade and pack seafood for sale or supply using knives, scalers and power equipment.

Seafood processors may perform the following tasks:

- inspect seafood on conveyors and sort for size and quality
- fillet fish
- scrape skin and pick blood and other waste from pre-cooked seafood
- separate tail and body of rock lobsters
- remove meat from shellfish
- process oysters
- pack seafood and count packs before freezing
- pack frozen seafood blocks into cartons
- operate machines which slice, peel, skin or crumb seafood
- clean and sanitise equipment and work areas.

Seafood processors work in a cool and wet environment and may be required to stand for most of the day. Protective clothing including gloves must be worn. Seafood processors must adhere to strict hygiene conditions. They are often required to start early in the morning to prepare seafood for the local markets or for exporting to other countries.

## Personal Requirements

- enjoy practical and manual work
- free from skin diseases or chest complaints
- good hand-eye coordination
- able to do quick and accurate work with hands
- able to work as part of a team
- safety conscious.

## Education and Training

You can work as a seafood processor without formal qualifications. You will probably get some informal training on the job.

You can also become a seafood processor through a traineeship in Seafood Industry (Seafood Processing). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

## Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Seafood Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

Seafood processors work for seafood wholesalers and retailers, processing companies, and on board fishing ships with processing facilities.

Seafood processing is often casual and seasonal in nature.

The increasing growth of the aquaculture industry has opened up new employment opportunities. Aquaculture products are aimed at specialised markets within Australia and overseas.

## For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
☎ <http://agrifoodskills.net.au>
- Seafood Services Australia ☎ (07) 3633 6777 or 1300 130 321 (Toll Free) ✉ [ssa@seafoodservices.com.au](mailto:ssa@seafoodservices.com.au)  
☎ [www.seafood.net.au](http://www.seafood.net.au)

## Related Jobs

Cook (p 130); Fish Farm Hand (p 183); Kitchenhand (p 240); Primary Products Inspector (p 330).

## Secretary

Also known as Office Professional and Personal Assistant.

Secretaries assist professionals, managers and executives by performing clerical and secretarial duties.

Secretaries may perform the following tasks:

- screen telephone and personal callers
- make and record appointments
- operate office equipment such as photocopiers, fax machines, switchboards and computers
- file correspondence and other records
- receive and process incoming and outgoing mail
- write letters and reports on behalf of the organisation
- store and retrieve data on computers
- talk to clients
- prepare agendas or programs for meetings
- attend and take minutes of meetings, both in the office and at other locations
- organise business itineraries, travel arrangements, conferences, meetings and social functions
- hire and supervise staff
- maintain budget and account records
- purchase office supplies.

The duties secretaries perform vary a great deal according to the size and type of organisation in which they work. Experienced secretaries may advance to positions of higher responsibility.



### Specialisations

**Legal Secretary** - uses knowledge of legal terminology to prepare documents and reports.

**Medical Secretary** - uses knowledge of medical terminology to prepare documents and reports.

### Personal Requirements

- good command of the English language, both written and spoken
- sound organisational and interpersonal skills
- able to work under pressure and meet deadlines
- able to work independently
- aptitude for working with computers
- good grooming and presentation
- able to act with tact and discretion.

### Education and Training

To become a secretary you usually have to complete an accredited course in secretarial skills. Certificate and diploma courses in these areas are widely available throughout Victoria. Entry to certificate courses usually requires at least Year 10. Entry to diploma courses usually requires completion of Year 12. As subjects can vary between institutions, you should contact the institutions you are interested in for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Secretary at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become a secretary through a traineeship in Business or Business Administration. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Secretaries may work in a variety of industries. Most work in medical centres, law and accounting firms, retail and wholesale firms, factories, travel agencies, hotels, motels, hospitals, schools, large hairdressing salons and other professional offices.

The extent of work duties depends on the individual's knowledge of what is required, their willingness to accept responsibility and the structure of the work area. Experience in a variety of clerical duties may be needed for office workers to move from one position to another and into other areas of administration.

### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Australian Institute of Office Professionals (National Office)  
☎ (03) 9388 9985 ✉ [nationaladmin@aiop.com.au](mailto:nationaladmin@aiop.com.au)  
☎ [www.aiop.com.au](http://www.aiop.com.au)

### Related Jobs

Administrative Assistant (p 54); Office Administrator (p 300); Public Servant - State Government (p 341); Receptionist (p 346); Transcript Typist (p 414); Word Processing Operator (p 440).

## Security Officer

Also known as Loss Prevention Officer, Protective Service Officer, Security Provider and Security Guard.

Security officers protect people and property, and maintain crowd control.

Security officers may perform the following tasks:

- patrol areas and check doors, gates and windows for signs of unauthorised entry
- watch for irregularities (e.g. fire hazards, leaking water pipes, lights left on, equipment malfunctions, unlocked security doors) and report incidents or problems to the appropriate authority
- record times of inspections and presence of authorised persons
- respond to alarms and check alarm systems
- provide armed escort for payroll deliveries
- observe and report suspects to police, or apprehend offenders when appropriate and detain them until police arrive
- monitor computer alarm systems, closed circuit television (CCTV) systems and communicate by radio with mobile units to attend alarms
- issue security passes, give directions and make security arrangements for authorised visitors
- check travellers and their hand luggage to detect concealed weapons and explosives
- detect and report fraud, shoplifting and other unlawful acts of employees or patrons of business establishments
- provide armed protection for specific organisations (e.g. banks)
- provide assistance to the public and clients.

Security officers usually do shift work and may work at nights, on weekends and public holidays.

### Specialisations

**Air Marshal** - provides security at major airports as well as on domestic and international flights into and out of Australia. They are employed by the Australian Federal Police Protective Services (AFPPS).

**Australian Protective Service Officer** - provides security at Australian Government premises. They are employed by the Australian Federal Police Protective Services (AFPPS).

**Bodyguard** - carries out the personal protection of another person.

**Crowd Controller** - maintains order at large gatherings of people such as at night clubs or rock concerts.

**Gatekeeper** - makes sure that only authorised people or vehicles enter or leave particular premises. They may also check parking areas and vehicle loads.

**Mobile Patrol Guard** - moves by car or motorcycle between a number of establishments, such as building sites or factories in an industrial estate, to prevent fire or flood damage, theft and vandalism.

**Security Agent** - performs all the duties of a security officer, but may also hire out and supply a guard dog for the purpose of protecting or guarding a person or property. A security firm must be licensed to carry out this additional security task.

**Store Security Officer** - protects the property of retail stores by detecting and preventing shoplifting, investigating criminal offences, and carrying out other security tasks.

### Personal Requirements

- physically fit (may be required to pass a medical examination)
- good hearing and eyesight (may be corrected)
- observant
- responsible and trustworthy
- assertive with good interpersonal skills
- good communication and negotiation skills
- age limits apply for the carrying of firearms
- able to pass a police check
- Australian citizenship, or eligibility for citizenship, for Australian Protective Service Officer positions.



## Education and Training

To become a security officer you usually have to complete a certificate in security. Entry to the courses below usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

On completion of this training, you can apply for a licence from the Victoria Police Licensing Services Division. You must be over 18 and have police clearance.

### Certificate Courses

*Holmesglen Institute of TAFE - Moorabbin Campus:*

Certificate II in Security Operations

*Kangan Institute of TAFE - Broadmeadows Campus:*

Certificate II in Security Operations

Certificate III in Security Operations

Certificate IV in Security and Risk Management

### Additional Information

People involved in security work usually need a drivers licence.

### Employment Opportunities

The Australian Federal Police Protective Services (AFPPS) conducts recruitment campaigns on a regional basis as required. Positions are advertised in major state or territory newspapers. Protective service officers undergo an intensive 13-week training course in Canberra followed by a 6-month on-the-job training period. Air marshals also undergo intensive air security training in Canberra, which can take up to 13 weeks.

Security officers are employed by private security firms, banks, large department stores, industrial and commercial organisations and property companies that own office blocks and hotels.

Employers generally require people with a mature attitude for this occupation because of the responsibilities involved. In recent years there has been growth in the number of security officers employed and this is expected to continue.

Security officers may be promoted to supervisory or managerial positions or to central control duties, checking that visits or patrols have been undertaken. Opportunities for promotion are generally better with larger organisations, although it is possible to move from a small employer to a more senior position with another firm.

### For Further Information

- Australian Federal Police Protective Service (National Headquarters) ☎ (02) 6131 3000 🌐 [www.afp.gov.au](http://www.afp.gov.au)
- Australian Security Industry Association Limited ☎ (02) 8425 4300 ✉ [security@asial.com.au](mailto:security@asial.com.au) 🌐 [www.asial.com.au](http://www.asial.com.au)
- Construction and Property Services Industry Skills Council ☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au) 🌐 [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Security Providers Association of Australia Limited ☎ (02) 9894 1622 ✉ [admin@spaal.asn.au](mailto:admin@spaal.asn.au) 🌐 [www.spaal.asn.au](http://www.spaal.asn.au)

### Related Jobs

Corrections Officer (p 132); Police Officer - Australian Federal Police (p 326); Police Officer - State (p 327); Private Investigator (p 332); Security System Technician (p 365); Transport Services Officer (p 418).

## Security System Technician

Security system technicians fit and repair security systems in homes and businesses.

Security system technicians may perform the following tasks:

- inspect sites and talk to clients to determine security requirements
- provide estimates to clients for installation of equipment
- route cables through roof spaces, cavity walls and support structures and position and terminate cables, wires and strappings
- mount, position, calibrate, program and label all items of equipment
- test equipment and diagnose faults
- make connections to telephone lines for alarm monitoring
- maintain and adhere to operational procedures and complete appropriate documentation
- be responsible for assigned tools, plant and test equipment
- survey the workplace and complete a safety work method statement prior to commencement.

Security system technicians must develop a knowledge of the range of security equipment, including electronic and electrical surveillance systems and closed-circuit TV, as well as knowledge of simple electronic principles and terminating techniques. They must also understand the principles of operation and characteristics of controllers, detectors, relays, sirens, screamers and telephone circuits.

Security system technicians work mainly indoors and sometimes have to work in confined roof spaces. They have considerable contact with customers in businesses and private homes.

With experience and sometimes further training, it is possible to become self-employed or the manager of a team of security system technicians.

### Specialisation

**Security Adviser** - assesses risks and advises clients on security requirements, designs and recommends security systems to meet security requirements. Security advisers may also conduct surveillance and make recommendations to improve security measures.

### Personal Requirements

- enjoy practical and manual activities
- normal eyesight (may be corrected) and colour vision
- good communication and interpersonal skills
- good at technical activities.

### Education and Training

To become a security system technician you usually have to complete an apprenticeship in Security Equipment. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section.

### Additional Information

People engaged in security installation work must be appropriately registered, hold the required electrical and cabling licences and have a National Police Clearance Certificate.

### Employment Opportunities

Security system technicians are employed by security system installation companies. There has been significant growth in this field in recent years, especially in home security.

### For Further Information

- Australian Security Industry Association Limited ☎ (02) 8425 4300 ✉ [security@asial.com.au](mailto:security@asial.com.au) 🌐 [www.asial.com.au](http://www.asial.com.au)



- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
☎ [www.cpsisc.com.au](http://www.cpsisc.com.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)

#### Related Jobs

Electrician (p 160); Electronics Engineering Associate (p 162); Engineering Tradesperson - Mechanical (p 165); Security Officer (p 364).

## Service Station Attendant

Also known as Console Operator and Driveway Attendant.

Service station attendants sell fuel, lubricants, motor accessories, takeaway food, drinks and other items. They sometimes perform minor maintenance on motor vehicles.

Service station attendants may perform the following tasks:

- fill fuel tanks and LPG cylinders
- measure the level of oil in engines
- measure air pressure in tyres
- replenish oil, water and air levels
- wash windcreens
- clean petrol pumps and surrounding areas
- drive vehicles and collect spare parts
- accept cash, EFTPOS and credit card payments, and operate a computerised console machine and a cash register
- assist mechanics in minor car cleaning and repairs
- order stock and maintain displays for the retail section of the service station
- carry out basic administrative work.

Service station attendants have a high level of contact with the public and work mainly in a retail setting. They may have to work day and evening shifts and on weekends.

#### Personal Requirements

- enjoy practical and manual work
- no skin allergies caused by exposure to petrol or oil
- able to calculate figures, handle money and write clearly
- a friendly manner and good communication skills
- a current drivers license is desirable
- able to remember product information and provide advice to customers
- interest in motor vehicles and mechanical aptitude are desirable.

#### Education and Training

You can work as a service station attendant without formal qualifications. You will probably get some informal training on the job.

You can also become a service station attendant through a traineeship in Automotive Sales. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Service station attendants work in metropolitan areas and in country towns. Part-time work is often available. Shift work may be required as

there is a trend in some high traffic areas for longer service station operating hours.

It is possible for service station attendants to be promoted to the position of senior attendant and service station manager. Competent employees who have the necessary start-up funds may progress to their own dealerships.

#### For Further Information

- Institute of Automotive Mechanical Engineers Inc  
☎ (02) 9648 1412 ✉ [inbox@iame.com.au](mailto:inbox@iame.com.au)  
☎ [www.iame.com.au](http://www.iame.com.au)
- Service Station Association Ltd (National Office)  
☎ (02) 9420 5599 or 1800 659 000 (FREECALL)  
☎ [www.ssa.org.au](http://www.ssa.org.au)
- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) ☎ [www.atv.org.au](http://www.atv.org.au)

#### Related Jobs

Automotive Parts Interpreter (p 82); Car Park Attendant (p 101); Car Rental Officer (p 102); Car Wash Attendant (p 102); Light Vehicle Motor Mechanic (p 250); Sales Assistant (p 358); Vehicle Serviceperson (p 427); Windscreen Fitter (p 437).

## Set Designer

Set designers research, design and supervise the construction of sets and scenery, costumes and all the visual aids required in stage, film and television productions.

Set designers may perform the following tasks:

- produce freehand sketches, accurate scale models, plans and working drawings in consultation with the director of the production, the production manager and other creative artists
- design sets and props, taking into consideration budget allocations and the artistic and technical requirements of the director or producer
- supervise qualified tradespersons who construct the sets, and direct set assistants on matters relating to design interpretations
- design costumes
- advise on other areas of technical production such as lighting and sound.

Set designers mostly work in large cities where the main centres of entertainment production, training and development are located. Set designers often work long hours.

#### Personal Requirements

- artistic flair
- able to combine practical and artistic skills
- good communication skills.

#### Education and Training

To become a set designer you usually have to complete a diploma or degree specialising in design studies or visual arts. However, skills can also be gained on the job through extensive experience in the industry. Entry to the diploma course below usually requires Year 12. You may have to submit a folio and attend an interview. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in English and art are normally required. Applicants may also be required to attend an interview or audition, and present a portfolio of relevant design or artwork. Suitable industry experience (paid or voluntary) is an advantage. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.



## Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Visual Art

## Degree Courses

*Australian Catholic University - Melbourne Campus:*

Bachelor of Visual Arts and Design, 3 years full time

*Deakin University - Burwood Campus:*

Bachelor of Arts, majoring in visual arts, 3 years full time or equivalent

*La Trobe University - Bendigo and Mildura Campuses:*

Bachelor of Visual Arts, 3 years full time or equivalent

*Monash University - Gippsland Campus:*

Bachelor of Visual and Media Arts, 3 years full time or equivalent

*Monash University - Caulfield Campus:*

Bachelor of Visual Arts, 3 years full time

*Swinburne University of Technology - Prahran Campus:*

Bachelor of Design (Communication Design), majoring in visual communication, 3 years full time or equivalent

*Victoria University - Footscray Campus:*

Bachelor of Creative Arts Industries, majoring in visual arts, 3 years full time or equivalent

## Additional Information

Each November, the National Institute of Dramatic Art conducts auditions in most states and territories for its Bachelor of Dramatic Art (Design) course. Details and application forms are available from August from their website at [www.nida.edu.au](http://www.nida.edu.au) or by phoning NIDA on (02) 9697 7600.

## Employment Opportunities

Set designers are employed by theatre companies and by film and television production companies, usually under contract for the duration of a particular production. They may also be self-employed on a freelance basis.

Success in this field requires outstanding ability and artistic flair. Demand for set designers is linked to the number of films, television programs and stage shows under production at a given time; the level of government and private funding available; and popular trends in entertainment.

## For Further Information

- Design Institute of Australia (National Office)  
☎ [www.design.org.au](http://www.design.org.au)
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)

## Related Jobs

Stage Manager (p 382); Theatre Mechanist (p 403); Theatrical Costume Maker and Designer (p 404).

## Settlement Clerk

Settlement clerks perform specialised clerical work associated with real estate settlements.

Settlement clerks may perform the following tasks:

- arrange settlement times to suit all parties involved (vendor, purchaser and financial institution)
- check that the details and title of the property are correctly recorded at the state land titles authority
- attend settlement, making sure that all paperwork is correct
- collect any outstanding debt, or pay any money owing
- lodge completed documents with the state land titles authority to make sure that the transaction is registered.

Details must be recorded accurately to fulfil the necessary legal requirements. Settlement clerks may have to work long hours to make sure that deadlines are met.

## Personal Requirements

- good communication skills
- practical mathematical ability
- attention to detail.

## Education and Training

You can work as a settlement clerk without formal qualifications. You will probably get some informal training on the job, although there are a number of courses available that may help you in gaining employment.

Costs, duration and entry requirements may vary between courses. See the online entry for Settlement Clerk at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

You can also become a settlement clerk through a traineeship in Legal Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

## Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Business Services or Property Services Training Packages. These skills will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

The majority of settlement clerks are employed by solicitors, conveyancers and settlement agents. Most settlement agencies are small firms. Employment in settlement agencies is affected by the level of activity in real estate.

Some settlement clerks start their own agency after gaining the necessary experience in the industry.

## For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ☎ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
☎ [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Australian Institute of Conveyancers (VIC Division)  
☎ (03) 9876 8221 ☎ [admin@aicvic.com.au](mailto:admin@aicvic.com.au)  
☎ [www.aicvic.com.au](http://www.aicvic.com.au)
- The Real Estate Institute of Victoria Ltd ☎ (03) 9205 6666  
☎ [training@reiv.com.au](mailto:training@reiv.com.au) ☎ [www.reiv.com.au](http://www.reiv.com.au)

## Related Jobs

Administrative Assistant (p 54); Conveyancer (p 130); Law Clerk (p 243); Real Estate Salesperson (p 346); Valuer (p 424).

## Shearer

Shearers cut wool from sheep using power-driven handpieces, which are fitted with combs and cutters.

Shearers may perform the following tasks:

- take sheep from catching pens and hold firmly while shearing fleece in one piece
- select shearing combs to suit the type of sheep and wool
- treat any severe sheep skin cuts
- return shorn sheep to let-out pens for counting and checking
- shear stud animals with hand shears or special combs
- clean and sharpen combs and cutters
- identify sheep with specific characteristics, such as black spots, as requested by the wool classer.



Expedition shearers work in a team and may be responsible to an overseer or shearing contractor. These shearers travel long distances from property to property to work. Others may work within their own district and travel daily to the shearing shed, returning to their own homes each day.

Accommodation is usually provided in shearers' quarters either on the property or in a nearby town. Shearers supply their own work clothes, combs and cutters.

#### Personal Requirements

- able to work as part of a team
- able to work quickly and consistently with hands for long periods
- good hand-eye coordination
- willing to live in remote areas
- able to handle sheep with confidence
- physically fit.

#### Education and Training

You can work as a shearer without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications. Shearers usually begin their career by working with a shearing team as a shearing shed hand.

Entry to the certificate courses below usually requires at least Year 10. Contact the institution for full details.

You can also enter this occupation through a traineeship in Shearing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*South West Institute of TAFE - Warrnambool Campus:*

Certificate II in Shearing

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Rural Production Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Additional coaching is available in most states to help shearers achieve higher tallies and improve their earning ability.

#### Employment Opportunities

Shearers can be self-employed or work in shearing teams on properties usually located in country areas. They are paid according to the number of sheep they shear and crutch. Shearers can develop their skills to improve earnings and may progress to shed management, wool classing or other areas of the wool industry.

Employment is not as seasonal as it once was. There is usually work all year round in most states with peak demand being in spring and autumn.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)
- Wool Industry Training Australia Pty Ltd (National Office)  
☎ (02) 6882 8137 ✉ [brad.draper@staffrecruitment.com.au](mailto:brad.draper@staffrecruitment.com.au)

#### Related Jobs

Animal Technician (p 67); Farmer/Farm Manager (p 172); Jackaroo (p 236); Primary Products Inspector (p 330); Shearing Shed Hand (p 368); Wool Classer (p 439).

## Shearing Shed Hand

Also known as Wool Handler.

Shearing shed hands assist wool classers and shearers by performing routine duties in shearing sheds and handling the fleeces after they have been shorn from the sheep.

Shearing shed hands may perform the following tasks:

- assist station hands to pen sheep for shearing
- pick up the fleece after it is removed from the sheep and throw it onto a large table for 'skirting' (process to remove stained or coloured pieces and skin from the wool)
- remove inferior and stained wool from fleeces as directed by a wool classer
- grade wool which has been skirted off fleeces
- roll the fleece into bundles and pass it to a wool classer for classing
- sweep the shed floor around the shearing and wool handling areas to help keep the fleeces clean and to avoid contamination
- identify and remove belly wool from the shearing area and place in relevant packs.

Shearing shed hands may need to travel long distances from property to property to work. Accommodation is usually provided in shearers' quarters either on the property or in a nearby town. Some work within their own district and travel daily to the shearing shed, returning to their own homes each day.

With experience and sometimes further training, it is possible to become a shearer or a wool classer.

#### Specialisation

**Wool Presser** - transfers the fleeces and other wool types into wool presses to form solid bales. They weigh the bales, brand the completed wool bale with the farm brand, a description of the wool, the wool classer's stencil and a bale number, and keep records of all bales completed.

#### Personal Requirements

- able to work quickly for long periods
- able to work as part of a team
- willing to travel and live in remote areas
- able to undertake manual work
- good physical fitness and strength.

#### Education and Training

You can work as a shearing shed hand without formal qualifications. You will probably get some informal training on the job. However, there are a number of courses that may assist you in gaining employment.

Entry to the certificate courses below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a shearing shed hand through a traineeship in Agriculture (Sheep and Wool Production) or Wool Handling. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Bendigo Regional Institute of TAFE - Bendigo:*

Certificate II Wool Handling

*East Gippsland Institute of TAFE - Farmtech Education Centre and Outreach Centres:*

Certificate II Wool Handling



South West Institute of TAFE - Hamilton Campus:

Certificate II in Wool Handling

University of Ballarat (TAFE Division) - Ararat, Longerenong and SMB Ballarat Campuses:

Certificate II in Wool Handling

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Rural Production Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Shearing shed hands usually work for shearing contractors who form teams of shearers and shed hands. These teams make contracts with farmers to shear their sheep.

There is usually work all year round in most states with peak demand being in spring and autumn.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 <http://agrifoodskills.net.au>
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)
- Wool Industry Training Australia Pty Ltd (National Office)  
☎ (02) 6882 8137 ✉ [brad.draper@staffrecruitment.com.au](mailto:brad.draper@staffrecruitment.com.au)

#### Related Jobs

Farm Hand (p 171); Jackaroo (p 236); Shearer (p 367); Wool Classer (p 439).

## Ship's Catering Attendant

Ship's catering attendants provide cabin, bar and dining services to passengers and crew on ships.

Ship's catering attendants may perform the following tasks:

- clean cabins, lounges and other areas
- direct passengers to their cabins and carry luggage
- provide room service to passengers and crew
- distribute clean linen and make beds
- help to prepare and serve meals and drinks
- attend to passengers' needs such as laundry, despatching messages and answering queries.

With experience and sometimes further training, it is possible to become a chief ship's catering attendant.

Ship's catering attendants work on passenger and cargo ships. The work can be physically demanding and involves extended periods at sea. Ships generally have reasonable accommodation and working conditions.

#### Personal Requirements

- enjoy meeting new people
- good communication skills
- pleasant personality
- neat personal appearance
- enjoy life at sea
- good health and able to pass a medical examination
- Australian citizenship or permanent residency with a multiple entry visa.

#### Education and Training

You can work as a ship's catering attendant without formal qualifications but you will need to obtain some formal maritime training before commencing work. Entry to this occupation may be improved if

you have experience and/or formal qualifications in the hospitality industry.

Before working at sea, you will need to obtain a Certificate of Sea Safety Training issued by the Australian Maritime Safety Authority.

Currently there are no suitable safety training courses available in Victoria. Relevant training is provided interstate. The Maritime Education Centre (SEAMEC) at East Gippsland TAFE is currently seeking accreditation to run Certificate of Safety Training courses in 2011. For full details, contact the Australian Maritime Safety Authority.

#### Employment Opportunities

The availability of positions depends on the number of ships operating in and out of Australia and staff turnover.

#### For Further Information

- Australian Maritime Safety Authority (VIC) ☎ (03) 8612 6000  
✉ [melbourne@amsa.gov.au](mailto:melbourne@amsa.gov.au) 🌐 [www.amsa.gov.au](http://www.amsa.gov.au)
- Careers at Sea 🌐 [www.careersatsea.com.au](http://www.careersatsea.com.au)

#### Related Jobs

Caterer (p 108); Cleaner (p 119); Cook (p 130); Kitchenhand (p 240); Porter - Hotel/Motel (p 328); Room Attendant (p 356).

## Ship's Master

Also known as Chief Mate.

Ships' masters oversee navigation and manage the operation of ships at sea, in port and at anchor. A ship's master consults weather forecasts, makes a voyage plan and conducts equipment and inventory inspections in preparation of a vessel leaving port.

Ships' masters may perform the following tasks:

- control and direct the ship during berthing and mooring
- plan navigation according to relevant rules and regulations, and allow for possible emergencies during the voyage
- make sure safety regulations are adhered to
- oversee the receipt and transmission of information by radio, flags, morse lighting and pyrotechnic lighting
- make sure the ship runs safely, efficiently and economically
- monitor and maintain procedures for fire hazard, abandon ship and damage control situations
- observe and record in the daily logbook the ship's course and any alterations, the weather conditions and the ship's position
- coordinate cargo loading and discharge operations
- oversee maintenance activities and situations
- take responsibility for budgeting and expenditure.

Ships' masters may be required to work irregular hours or full-time shifts. They often remain on duty for long periods and may be at sea for months at a time. Conditions on board ship may be dangerous and unpleasant in rough seas.

#### Specialisations

**Ferry Master** - controls ferryboats to transport people, motor vehicles or freight across bodies of water like lakes, bays or rivers. Ferry masters determine the speed and course of the ferryboat and steer, or direct others to steer, the vessel toward the landing pier on the opposite side of the water body.

**Ship's Captain** - controls the operation of vessels used in water transport and commands the officers and crew. A captain may command a passenger liner, tanker, cargo ship, car carrier, livestock carrier, large fishing vessel, ferry or tug.



### Personal Requirements

- able to make decisions under pressure
- able to lead and manage a crew
- willing to spend time at sea
- normal colour vision.

### Education and Training

To become a ship's master you usually have to complete an Advanced Diploma of Applied Science (Chief Mate/Master) or an Advanced Diploma of Transport and Distribution (Maritime Operations-Master Unlimited). Entry to the advanced diploma courses below usually requires a Certificate in Marine Operations (Integrated Rating), followed by a Deck Watchkeeper Certificate of Competency or equivalent, plus sea time approved by the Australian Maritime Safety Authority. On successful completion of an advanced diploma, the Australian Maritime Safety Authority will issue a Master's Certificate of Competency, which is internationally recognised.

See the entry for Integrated Rating for further details.

There are no suitable courses available in Victoria. The following courses are offered interstate.

#### Diploma Courses

*Challenger Institute of Technology, WA Maritime Training Centre - Fremantle Campus:*

Advanced Diploma of Transport and Distribution (Maritime Operations-Master Unlimited)

*University of Tasmania - Australian Maritime College:*

Advanced Diploma of Applied Science (Chief Mate/Master)

### Employment Opportunities

The majority of vacancies for ships' masters in Australian ports exist in Queensland. Some ships' masters also choose to move into related occupations that require the same qualifications, such as harbour pilot, and others may work onshore for port companies. There is strong competition for available positions.

### For Further Information

- Australian Shipowners Association (Head Office)  
☎ (03) 9647 6000 ✉ admin@asa.com.au  
🌐 www.asa.com.au
- Careers at Sea 🌐 www.careersatsea.com.au
- Australian Maritime Safety Authority (VIC) ☎ (03) 8612 6000  
✉ melbourne@amsa.gov.au 🌐 www.amsa.gov.au

### Related Jobs

Coxswain (p 135); Integrated Rating (p 233); Marine Engineer (p 255); Navy Sailor (p 292); Ship's Officer (p 370).

## Ship's Officer

Also known as Deck Officer, Mate and Ship's Deck Officer.

Ships' officers navigate and supervise the safe operation of ships at sea, in port and at anchor. They coordinate the activities of the crew and control cargo stowage, loading and unloading operations.

Ships' officers may perform the following tasks:

- liaise between the captain/master and the crew of the ship
- keep watch from the bridge in watches (shifts)
- determine the position of the ship and other vessels and obstructions by using navigational aids
- supervise the work done by the crew
- provide medical and/or first aid treatment for the crew
- make sure safety regulations are observed
- perform designated safety/firefighting drills in emergency situations

- observe and record the ship's course and any alterations, the weather conditions and the ship's position in the daily logbook
- coordinate cargo loading and discharge operations and maintenance
- update charts and other nautical publications
- ensure that all necessary documentation has been completed

Officers may be required to work or remain on duty for long periods. Generally they work in watches of eight hours on and eight hours off over a 24-hour period, depending on the type of ship they are working on.

### Specialisation

**Ship's Pilot** - assists the Ship's Master in commanding ships in order to steer them in and out of harbours. Ships' pilots direct the speed and course of the ship with their specialised knowledge of the wind, tides, current and weather that is typical of a particular location. They are sometimes on stand-by duties at a port with a tugboat, so that they can assist an incoming ship when needed.

### Personal Requirements

- willing to spend time at sea, often away from home for long periods
- pass a medical examination, an eyesight test and have normal colour vision
- responsible and diligent
- able to work as part of a team.

### Education and Training

To become a ship's officer you usually have to complete a cadetship with a shipping company involving on-the-job training, and study over four years at sea. To get into the cadetship, you will need to gain your VCE with English, mathematics and physics.

### Additional Information

Those who do not sign on as a cadet may achieve the level of second mate (the basic requirement for a ship's officer) by obtaining employment as an integrated rating (sailor). This training must include experience at sea, as well as off-the-job training through Australian Maritime Safety Authority (AMSA) approved Registered Training Organisations, including TAFE. This method can take at least eight years because it requires private study outside working hours. See the entry for Integrated Rating for details.

Once you have completed this training you may be eligible to sit the AMSA certificate of competency test. You must also be at least 20 years of age and pass a medical examination to gain a Certificate of Competency. The AMSA Certificate of Competency is an internationally recognised qualification.

### Employment Opportunities

Opportunities for those who aspire to an officer's position in the Australian shipping industry are limited. However, there is a demand for officers with Australian qualifications to work overseas. To do this you will need to have an internationally recognised qualification from the AMSA. With experience and further study, there are limited opportunities for promotion to ship's captain/master.

### For Further Information

- Australian Shipowners Association (Head Office)  
☎ (03) 9647 6000 ✉ admin@asa.com.au  
🌐 www.asa.com.au
- Careers at Sea 🌐 www.careersatsea.com.au
- Australian Maritime Safety Authority (VIC) ☎ (03) 8612 6000  
✉ melbourne@amsa.gov.au 🌐 www.amsa.gov.au



## Related Jobs

Coxswain (p 135); Deck Hand (p 141); Integrated Rating (p 233); Marine Engineer (p 255); Marine Surveyor (p 256); Navy Officer (p 291); Ship's Master (p 369).

## Shipwright

Also known as Boatbuilder.

Shipwrights construct, fit out, commission and repair all types of vessels from small pleasure craft through to a range of commercial and naval vessels.

These vessels are built from a range of materials including metal, wood, aluminium, fibreglass, plastic, composites or ferro cement (reinforced cement or concrete).

Shipwrights may perform the following tasks:

- prepare preliminary sketches of structural parts and sections of vessels
- produce templates and patterns from full-size detail drawings
- fit out internal and external components of vessels
- position sections accurately prior to permanent fastening
- prepare slipways and construct cradles used to support ships during construction, transportation, launching and slipping
- supervise launching and slipping procedures
- carry out repairs.

Shipwrights work on the waterfront in shipyards, in the repair sections of ports or in small boat yards and marinas.

### Personal Requirements

- enjoy practical and manual work
- good at technical activities
- able to work at heights on scaffolding
- physically fit
- able to solve problems
- organised, methodical approach to work.

### Education and Training

To become a shipwright you usually have to complete an apprenticeship in Marine Craft Construction. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Shipwrights are employed in construction firms, the Australian Defence Force, companies building leisure craft, as surveyors and in firms engaged in building and operating marinas. Substantial opportunities for self-employment also exist.

Some of these businesses may operate on a mobile basis.

Competition is strong for available apprenticeships.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Superyacht Base Australia ☎ (03) 9682 4955  
✉ [info@superyachtbase.com](mailto:info@superyachtbase.com) ☎ [www.superyachtbase.com](http://www.superyachtbase.com)

### Related Jobs

Engineering Tradesperson - Fabrication (p 164); Engineering Tradesperson - Mechanical (p 165); Marine Surveyor (p 256); Vehicle Body Builder (p 425).

## Shoe Repairer

Also known as Footwear Repairer.

Shoe repairers repair shoes and leather goods according to customer requirements.

Shoe repairers may perform the following tasks:

- choose ready-made new soles or cut them from pieces of leather, rubber or nylon, and cement to the shoe
- nail or sew the soles to the shoes using a power-operated sole stitcher or a manually operated sewing machine
- replace heels by cutting replacement heels into shape and cementing or nailing them into place by machine or by hand
- stain and polish repaired shoes to match the original colour
- replace insoles and toecaps, re-stitch loose seams, replace bows and ribbons, and re-colour and polish shoes
- carry out repairs such as replacing zips on handbags and luggage
- cut keys and do engraving
- manage other staff and do the banking and accounts
- if highly skilled, make surgical adjustments such as building up soles and heels or adapting footwear according to doctors' prescriptions.

### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- able to work quickly and accurately
- free from allergies to glue and polish.

### Education and Training

You can work as a shoe repairer without formal qualifications. You will probably get some informal training on the job.

You can also become a shoe repairer through a traineeship in Footwear Repair. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Most shoe repairers work on their own in small shops. Individual employers do not always have enough business to take on a trainee. Shoe repairers often work in multi-service bars that also offer key cutting and engraving.

Job prospects have been affected by changes in fashions and materials; for example, the increasing use of plastics and rubbers, which are not considered repairable.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Footwear Repairers' Association (VIC) ☎ (03) 9885 9430  
✉ [frav@shoerepair.com.au](mailto:frav@shoerepair.com.au) ☎ [www.shoerepair.com.au](http://www.shoerepair.com.au)

### Related Jobs

Footwear Worker (p 190); Industrial Textiles Fabricator (p 227); Leather Goods Maker (p 246).

## Shotfirer

Also known as Blaster.

Shotfirers assemble, position and detonate explosives to break or dislodge rock and soil or to demolish structures.

Shotfirers may perform the following tasks:

- check blasting areas to make sure that safety regulations are met
- decide quantity of explosives required



- insert detonators and charges into holes
- connect and test or inspect the blasting circuit
- fire charges
- inspect area to make sure all explosives have detonated
- declare the area safe
- check site safety after blasting (e.g. falling rock hazards, underground mine roof supports and harmful fumes).

Shotfirers may be required to work in remote areas and conditions which may be dusty, hot and noisy. Shotfirers may be required to work shifts.

#### Specialisations

**Agricultural Blaster** - uses small-scale blasting to clear rural areas of objects, such as stumps and boulders, and to create holes for small dams, trenches, etc.

**Construction Shotfirer** - uses blasting to create trenches in which to place foundations for civil constructions such as buildings and bridges. Implosion and explosion techniques used to demolish buildings are a specialised area and require many years of experience.

**Fireworks Specialist** - uses small explosions to create special effects, generally for public viewing.

**Quarry and Open-cut Mining Shotfirer** - uses larger amounts of explosives to clear masses of earth in open areas. Numerous smaller blasts are often detonated together to create a larger force.

**Seismic Blaster** - detonates explosives to create seismic waves which provide information about underground mineral and petroleum deposits.

**Submarine (Underwater) Blaster** - uses explosives to clear areas underwater as well as create holes for the foundation of civil constructions, such as bridges.

**Tunnelling and Underground Mining Shotfirer** - uses small amounts of explosives to blast through rock underground. Generally, small blasts are detonated in a sequence to minimise the force and decrease any possibility of unwanted damage.

#### Personal Requirements

- enjoy practical and manual activities
- willing to adhere to safety requirements
- physically fit
- able to pass a medical examination
- able to work in confined spaces, including underground
- basic skills in mathematics and science
- able to pass a police check.

#### Education and Training

You can work as a shotfirer without formal qualifications. You will probably get some informal training on the job.

#### Additional Information

You will need to obtain an appropriate licence to undertake work with explosives. For more information contact WorkSafe Victoria.

#### Employment Opportunities

Shotfirers are mainly employed by drilling and blasting contractors. While mining companies, quarries, civil engineering and road construction firms require shotfirers, this is often contracted out to specialist companies.

#### For Further Information

- Minerals Council of Australia ☎ (02) 6233 0600  
✉ education@minerals.org.au 🌐 www.miningcareers.com
- SkillsDMC Ltd (Resources and Infrastructure Industry Skills Council) ☎ (02) 9299 3014 ✉ skillsdmc@skillsdmc.com.au  
🌐 www.skillsdmc.com.au

- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

#### Related Jobs

Miner (p 276).

## Signmaker

Also known as Sign Industry Worker and Signwriter.

Signmakers design, manufacture, install and paint signs for displays, buildings, signboards, boats, vehicles and structures.

Signmakers may perform the following tasks:

- talk to clients to find out their requirements, and provide miniature colour sketches if required
- select suitable materials for signs such as timber, plastic, metal or glass
- prepare surfaces (by filling any holes, sanding and cleaning), and then mix the oil paint, enamel, plastic paint, poster colour or varnish
- sketch letters or draw with a template (pattern), paint the background if required, and then paint the sign
- create two-dimensional or three-dimensional lettering and graphics, using computer-operated machinery
- design wall murals, screen prints, gold-leaf work and custom-vehicle art.

Signmakers work both indoors and outdoors, and spend some time on ladders or scaffolding. They may be required to work in confined spaces or use toxic substances. With the move towards computerised manufacture of signs, computing skills are becoming more important.

#### Personal Requirements

- enjoys and displays ability in drawing and design
- willing to work at heights
- good eyesight (may be corrected) and normal colour vision
- accurate spelling
- good computer skills
- good at working with hands
- willing to work both indoors and outdoors.

#### Education and Training

To become a signmaker you usually have to complete an apprenticeship in Signage. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Most signmakers are self-employed. Others work for signwriting firms or industrial and commercial firms. Most jobs are in metropolitan areas. Competition for apprenticeship places is strong.

Technological changes and computer-aided production have significantly reduced the workforce.

#### For Further Information

- Australian Sign and Graphics Association ☎ 1300 274 200  
✉ michael\_punch@signs.org.au 🌐 www.signs.org.au
- Australian Engravers and Signmakers Association Inc  
☎ (02) 9644 2266 ✉ geneng@hotmail.net.au  
🌐 www.engravers.org.au
- Master Painters Association of Victoria ☎ (03) 9813 5922  
✉ mail@mpav.com.au 🌐 www.mpav.com.au



### Related Jobs

Engraver (p 166); Graphic Designer (p 206); Painter and Decorator (p 306); Printing Hand (p 331); Printing Machinist (p 332); Screen Printer/Stencil Preparer (p 362).

## Smallgoods Maker

Smallgoods makers select and prepare meat, and manage the processes in the production of smallgoods.

Smallgoods makers may perform the following tasks:

- order supplies from wholesalers using international AUS-MEAT Language, as well as weigh and check stock on receipt
- store meat in refrigerators or freezers
- prepare meat by removing bones and trimming fat
- make seasonings, flavouring agents and pickling solutions and pickle meat according to recipes
- assemble and operate mincers, grinders, mixers, and patty-forming or sausage-forming machines
- shape meat or meat emulsion to make sausages and smallgoods
- add seasonings to ground meat
- operate filling machines, cooking kettles and vats, and smoking chambers
- cure and cook meat products
- use correct detergents and sanitisers to prevent food poisoning and contamination of premises and equipment
- help clients (including hotels and restaurants) in menu planning and working out food portions and production costs
- pack and store products for display and sale
- collect payment for sales.

Smallgoods makers work with a variety of knives, hand tools, power equipment (including mincers, mixers and bandsaws) and computer-operated machinery.

Smallgoods makers work in shops and boning/slicing rooms.

Smallgoods makers usually have early morning starts and their work involves a lot of contact with people including customers and workmates. Smallgoods makers are exposed to animal blood.

### Personal Requirements

- enjoy practical and manual work
- physically fit and in good health
- good hand-eye coordination
- good interpersonal skills
- good hygiene.

### Education and Training

To become a smallgoods maker you usually have to complete an apprenticeship in Meat Processing (Smallgoods - Manufacture). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Most smallgoods makers are employed in small or large retail businesses or supermarkets. Some are self-employed. Smallgoods makers also work in wholesale and export businesses, where they prepare smallgoods for local consumption or for export. Qualified smallgoods makers may have the opportunity to become involved in other areas of the hospitality and food industries, such as meat and meat products inspection, export and associated services.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ reception@agrifoodskills.net.au  
🌐 <http://agrifoodskills.net.au>
- Australian Meat Industry Council ☎ (02) 9086 2200  
✉ admin@amic.org.au 🌐 [www.amic.org.au](http://www.amic.org.au)
- National Meat Industry Training Advisory Council (MINTRAC)  
☎ (02) 9819 6699 or 1800 817 462 (FREECALL)  
✉ mintrac@mintrac.com.au 🌐 [www.mintrac.com.au](http://www.mintrac.com.au)

### Related Jobs

Butcher (p 99); Chef (p 109); Cook (p 130); Meat Processing Worker (p 262); Primary Products Inspector (p 330).



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## Social Worker

Social workers help people to deal with personal and social problems, either directly or by planning or carrying out programs that benefit groups or communities.

Social workers may perform the following tasks:

- counsel individuals through a crisis that may be due to death, illness, relationship breakdown or other reasons
- provide clients with information on services to assist them
- provide letters of referral or reports that will help clients to obtain other services such as crisis accommodation or social security benefits
- guide small groups of people to share their experiences, support each other and learn social skills
- help community groups to plan and carry out programs to help themselves (e.g. assisting newly arrived immigrants to form an association)
- research community problems, needs and solutions through client contact and records of welfare and health agencies
- analyse statistics and write reports
- develop policy and evaluate programs
- manage and train staff
- attend professional meetings
- lobby to change social welfare policies and procedures in the pursuit of social justice for all members of the community.

Social workers specialise in fields such as family, youth and child welfare services, medical and health services, disability services, psychiatric and general mental health services, juvenile and family law courts, aged care and disabilities, income support and mediation.

Some social workers travel to visit clients or run group meetings. In country areas they may travel long distances. They may also be involved in private practice, research or teaching.

### Personal Requirements

- emotional maturity
- keen analytical abilities
- able to view other people's problems objectively
- good organisational and communication skills
- able to work independently or as part of a team
- commitment to social justice.



### Education and Training

To become a social worker you usually have to study social work at university. To get into the courses below you usually need to gain your VCE with English. The universities have different prerequisites and may have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

**Deakin University - Geelong Waterfront Campus and Distance Education:**

Bachelor of Social Work, 4 years full time or equivalent

**La Trobe University - Albury-Wodonga, Bendigo, Bundoora and Mildura Campuses:**

Bachelor of Human Services/Master of Social Work, 4 years full time or equivalent

**Monash University - Caulfield Campus:**

Bachelor of Arts/Bachelor of Social Work, 4 years full time or equivalent

Bachelor of Health Science/Bachelor of Social Work, 4 years full time

**RMIT University - City Campus:**

Bachelor of Social Work, 4 years full time

**Victoria University - Footscray Park and St Albans Campuses:**

Bachelor of Social Work (Preliminary Year), 1 year full time or equivalent followed by Bachelor of Social Work, 3 years full time or equivalent

#### Additional Information

There is no legal registration for social workers in any Australian state or territory. However, the Australian Association of Social Workers (AASW) is the professional body that sets standards for social work in Australia, and many jobs require eligibility for membership of AASW. Completion of an AASW accredited Bachelor of Social Work degree automatically confers eligibility for membership of AASW.

#### Employment Opportunities

Social workers are employed in a variety of health fields and may be employed in state, territory and federal government departments, in hospitals, community health centres, local government authorities or non-government welfare agencies. Some social workers are self-employed, working as counsellors, therapists and consultants.

With their broad academic and practical training, qualified social workers may also work in non-social work areas as project officers, policy makers or administrators.

Employment depends largely on funding from federal, state and territory governments. Applicants can expect competition for available positions in cities, while opportunities in rural areas will continue to grow.

#### For Further Information

- Australian Association of Social Workers (National Office)  
☎ (02) 6232 3900 ✉ [aaswnat@aasw.asn.au](mailto:aaswnat@aasw.asn.au)  
🌐 [www.aasw.asn.au](http://www.aasw.asn.au)
- CRS Australia ☎ 1800 277 277 🌐 [www.crsaustalia.gov.au](http://www.crsaustalia.gov.au)
- Health and Community Service Careers  
🌐 [www.hcscareers.vic.edu.au/index.php](http://www.hcscareers.vic.edu.au/index.php)

#### Related Jobs

Art Therapist (p 75); Community Worker (p 122); Counsellor (p 133); Criminologist (p 137); Disability Services Instructor (p 148); Health Promotion Officer (p 210); Probation and Parole Officer (p 333); Psychologist (p 337); Rehabilitation Counsellor (p 352); Religious Leader (p 353); Sociologist (p 374); Special Care Worker (p 376); Welfare Worker (p 436); Youth Worker (p 442).

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### Sociologist

Sociologists study the development, structure, social patterns and inter-relationships of social groups and human societies.

Sociologists may perform the following tasks:

- observe and investigate social groups and subjects, such as the family, the community, education, industrial relations, crime, politics, minority and ethnic relations, poverty and mass communications
- research, collect and analyse data, often using computers
- record and interpret facts and figures and write reports
- undertake systematic interviews of selected individuals
- live in the community being studied to assist their understanding.

Sociologists may be required to travel to conduct research and to consult with other social scientists.

#### Personal Requirements

- able to remain objective
- sensitivity to and interest in social issues
- good oral and written communication skills
- aptitude for research
- able to work independently.

#### Education and Training

To become a sociologist you usually have to study arts, humanities or social science at university with a major in sociology. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees in arts, humanities or social science with a major in sociology. Contact your preferred university for further details.

#### Employment Opportunities

Sociologists are usually employed as academics and consultants. They may also work as independent authors of academic and/or more popular articles and books. Sociology graduates find employment in a number of related fields of social research, planning and policy development and evaluation. Private enterprise is increasingly employing sociologists in the areas of survey research, consultancy, equal opportunity and human resources.



Sociology is relevant to a career in social work, ethnic and social justice affairs, health sciences and correctional and other community services.

Students who wish to pursue an academic career should aim to achieve good results in an honours degree, followed by study for a higher degree by research.

Social problems such as unemployment and juvenile crime create demand for sociologists' skills. Demand is also affected by government funding in the public service, education and scientific research areas.

#### For Further Information

- The Australian Sociological Association (TASA)  
☎ (03) 9214 5283 ✉ admin@tasa.org.au 🌐 www.tasa.org.au

#### Related Jobs

Anthropologist (p 68); Criminologist (p 137); Historian (p 212); Market Researcher (p 257); Marketing Officer (p 257); Political Scientist (p 328); Psychologist (p 337); Research Officer (p 353); Social Worker (p 373); Welfare Worker (p 436).

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## Sound Technician

Also known as Audio Engineer.

Sound technicians operate technical equipment to amplify, enhance, record, mix or reproduce sound in support of performing arts, and may also assemble and maintain sound equipment.

Sound technicians may perform the following tasks:

- determine sound requirements
- set up, test and operate equipment in accordance with the acoustics of the area and select, place and adjust microphones
- monitor audio signals to detect quality deviations or malfunctions
- service, maintain and repair amplifiers, tuners, receivers, digital audio systems, turntables and pick-ups, reel-to-reel and cassette-type tape recorders, and speaker systems
- build and install sound systems
- dub and edit tapes or compact discs
- operate controls to maintain correct sound levels
- talk with performers and instruct them on microphone use
- introduce pre-recorded special effects required by scripts.

Sound technicians may work in radio, television and recording studios, or in theatres and other live performance venues. They may also work in wholesale and retail businesses trading in sound reproduction, recording and public address equipment. In some cases, they specialise in operating or maintaining sound equipment.

Sound technicians may be required to work shifts that involve long hours in the evenings and on weekends. They often work under difficult conditions and, with outdoor concerts, in variable weather.

#### Personal Requirements

- a good ear for detail in all areas of sound
- aptitude for working with computers and audio equipment
- able to work under pressure.

#### Education and Training

You can work as a sound technician without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate and diploma courses below usually requires Year 12. Applicants may also be required to attend an interview and submit a portfolio. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a sound technician through a traineeship in Live Production, Theatre and Events (Technical Operations) or Sound Production. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

##### *Bendigo Institute of TAFE - Bendigo Campus:*

- Certificate III in Music Industry (Technical Production)
- Certificate IV in Music Industry (Technical Production)

##### *Northern Melbourne Institute of TAFE - Fairfield Campus:*

- Certificate IV in Music Industry (Technical Production)

##### *RMIT University (TAFE Division) - City Campus:*

- Certificate IV in Music Industry (Technical Production)

##### *SAE Institute - Melbourne:*

- Certificate III in Music Industry (Technical Production)

##### *Victoria University (TAFE Division) - Footscray Nicholson Campus:*

- Certificate IV in Music Industry (Technical Production)

#### Diploma Courses

##### *Box Hill Institute of TAFE - Whitehorse Campus:*

- Diploma of Live Production, Theatre and Events - Technical Production
- Advanced Diploma of Music Industry (Technical Production)

##### *Goulburn Ovens Institute of TAFE - Benalla Campus:*

- Diploma of Live Production, Theatre and Events - Technical Production

##### *Northern Melbourne Institute of TAFE - Fairfield Campus:*

- Advanced Diploma of Music Industry (Technical Production)

##### *RMIT University (TAFE Division) - City Campus:*

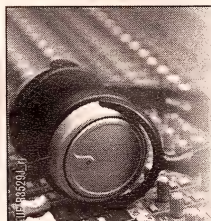
- Diploma of Music Industry (Technical Production)

##### *SAE Institute - Melbourne:*

- Diploma of Sound Production

##### *University of Ballarat (TAFE Division) - SMB Ballarat Campus:*

- Diploma of Live Production, Theatre and Events - Technical Production



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**Victoria University (TAFE Division) - Footscray Nicholson Campus:**  
 Diploma of Music Industry (Technical Production)  
 Advanced Diploma of Music Industry (Technical Production)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment or Music Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Sound technicians are employed by the Australian Broadcasting Corporation (ABC), commercial radio and television broadcasting stations, film production companies, theatre and live entertainment companies and venues, sound recording studios and public address equipment and audio reproduction businesses. Some sound technicians work freelance and may establish their own studios.

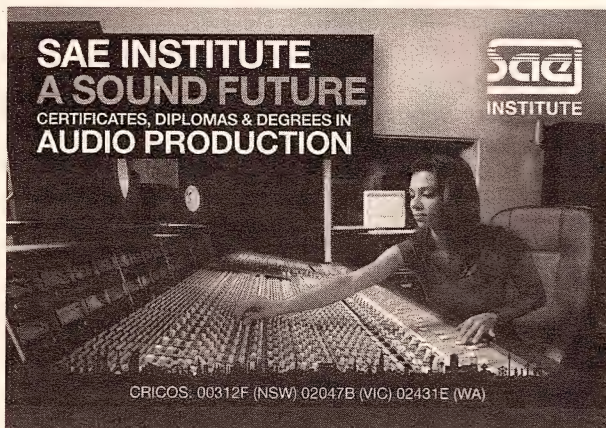
This is a very competitive occupation and people sometimes need to travel interstate to find work.

#### For Further Information

- Australian Broadcasting Corporation (VIC) ☎ (03) 9626 1500  
 🌐 [www.abc.net.au](http://www.abc.net.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
 ✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Audiovisual Technician (p 80); Games Developer (p 198); Production Crew Member (p 334); Stage Manager (p 382); Theatre Mechanist (p 403).



## Special Care Worker

Also known as Developmental Care Worker, Home Support Worker and Residential Care Worker.

Special care workers provide care, supervision and support for children, the disabled and aged people in residential establishments and in their own homes.

Special care workers may perform the following tasks:

- assist people with their self-medication
- plan and implement programs of supervision and care for those in residential care
- provide support at home with health issues and daily living tasks such as washing, dressing, eating, transport and budgeting
- supervise and arrange activities to enhance the physical, social, emotional and intellectual development of those in residential care
- make sure that those in residential care are washed, dressed, fed and ready for educational and recreational activities

- supervise those in residential care during domestic activities such as eating meals and showering
- provide companionship and support during daily activities for those who are sick or aged
- cook and serve meals, clean premises, wash, iron and perform other household tasks
- organise refuge accommodation
- implement appropriate strategies for managing problems related to dementia.

Special care workers work in private homes and community establishments. They may be required to work evenings, weekends and public holidays and may be required to live-in.

#### Specialisations

**Home Care Worker** - provides at-home assistance and care for people unable to care for themselves and/or their families because of sickness, disability or old age.

**Attendant Care Worker** - concentrates on providing personal care assistance to disabled people in the home or workplace. These duties may include bathing, lifting, moving, dressing, grooming, exercising or feeding people with disabilities.

**Mother's Helper** - assists new mothers with the additional work involved with the arrival of a new baby. They also care for other children, clean and cook meals.

#### Personal Requirements

- patience, flexibility and understanding
- supportive and caring nature
- able to accept responsibility
- good communication skills
- able to work as part of a team
- able to cope with the physical demands of the job
- able to perform domestic duties efficiently.

#### Education and Training

You can work as a special care worker without formal qualifications. However, entry to this occupation may be improved if you have qualifications or previous experience with people who require special help.

Entry to the certificate courses below usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become a special care worker through a traineeship in Aged Care, Disability or Home and Community Care. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**TAFE Victoria - various locations:**

- Certificate III in Aged Care
- Certificate IV in Aged Care
- Certificate III in Disability
- Certificate IV in Disability
- Certificate III in Home and Community Care

**Chisholm Institute of TAFE - Berwick and Frankston Campuses:**

- Certificate IV in Home and Community Care

**Victoria University (TAFE Division) - Footscray Nicholson and Werribee Campuses:**

- Certificate III in Home and Community Care



### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Community Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

A drivers licence and car are essential for those providing community and home support care.

### Employment Opportunities

Special care workers are employed by community health centres, local government authorities, private hospitals, multi-disciplinary health centres in the country, and aged-care centres.

The demand for special care workers depends on the need in the community for special care for children, the elderly and disabled people, and on the level of government funding for disability services.

### For Further Information

- Carers Australia ☎ [www.carersaustralia.com.au](http://www.carersaustralia.com.au)
- Community Services and Health Industry Skills Council Ltd ☎ [www.careerthatmatter.com.au](http://www.careerthatmatter.com.au)
- DIAL-AN-ANGEL ☎ 1300 721 111  
✉ [administration@dialanangel.com](mailto:administration@dialanangel.com) ☎ [www.dialanangel.com](http://www.dialanangel.com)

### Related Jobs

Disability Services Instructor (p 148); Occupational Therapist (p 299); Personal Care Worker (p 312); Social Worker (p 373); Teacher - Special Education (p 398); Welfare Worker (p 436).

## Speech Pathologist

Also known as Speech Therapist.

Speech pathologists diagnose, treat and provide management services to people of all ages with communication disorders, including speech, language, voice, fluency and literacy difficulties, or people who have physical problems with eating or swallowing.

Speech pathologists may perform the following tasks:

- establish the exact nature and severity of each client's communication problems, which may require the use of special equipment and tests
- plan and carry out treatment and management, taking into account the client's age, past and present social environment, and physical and intellectual abilities
- treat children who are unable to communicate effectively due to conditions such as cleft palate, hearing loss, delayed speech or language development, cerebral palsy or emotional disturbances
- treat adults whose language, speech or voice has been affected by surgery, disease or disorders of the nervous system, brain damage or hearing loss
- help children and adults overcome stuttering
- assess and treat children and adults who have difficulty chewing and swallowing
- act as a consultant to education, medical, dental and other health professionals
- provide ongoing counselling, advice and information to clients and families as a part of overall treatment.

Speech pathologists work closely with other professionals as part of a team.

### Personal Requirements

- good listening and interpersonal skills
- enjoy language and communication
- able to inspire confidence and cooperation
- enjoy working with people

- a patient and tactful approach to people's problems
- able to deal with complex and unusual situations.

### Education and Training

To become a speech pathologist you usually have to study speech pathology at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, mathematics, physical education and physics are normally required. The universities have different prerequisites and may have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

*Charles Sturt University - Albury-Wodonga Campus:*

Bachelor of Health Science (Speech Pathology), 4 years full time

*La Trobe University - various locations:*

Bachelor of Health Sciences/Master of Speech Pathology, 4 years full time or equivalent (second, third and fourth years only at Bendigo Campus)

### Additional Information

Students will be required to obtain a Senior First Aid certificate, a National police record check, and evidence of immunisation status, prior to commencing clinical placements. They may also be required to obtain a Working with Children Check.

Graduates are eligible for membership of Speech Pathology Australia. Most employers require applicants for speech pathology positions to demonstrate that they are eligible for current practising membership of Speech Pathology Australia. For some employers this is a mandatory requirement.

### Employment Opportunities

Speech pathologists work in public hospitals, rehabilitation centres, community and mental health services, schools, kindergartens and specialist organisations providing services for people with disabilities. Speech pathologists can also work in private practice. Some are engaged in teaching and research.

### For Further Information

- CRS Australia ☎ 1800 277 277 ☎ [www.crsaustalia.gov.au](http://www.crsaustalia.gov.au)
- Speech Pathology Australia ☎ (03) 9642 4899  
✉ [office@speechpathologyaustralia.org.au](mailto:office@speechpathologyaustralia.org.au)  
☎ [www.speechpathologyaustralia.org.au](http://www.speechpathologyaustralia.org.au)
- Health Services Union - Health Professionals ☎ (03) 9341 3390  
✉ [hsuhp@hsuvc.asn.au](mailto:hsuhp@hsuvc.asn.au) ☎ [www.hsuvc.asn.au](http://www.hsuvc.asn.au)

### Related Jobs

Audiologist (p 78); Audiometrist (p 79); Medical Practitioner (p 268); Physiotherapist (p 319); Rehabilitation Counsellor (p 352).

## Sports Administrator

Sports administrators manage sports clubs or associations, undertaking activities such as promoting their sport, obtaining corporate sponsorship and refining the rules and structure of their sport.

Sports administrators usually work with a voluntary board or committee to develop strategies and programs to achieve the aims and policies of the club or association.

Sports administrators may perform the following tasks:

- talk to clients and conduct research to determine their needs
- develop programs and services that meet client needs
- consult widely to develop short- and long-term business plans for their sport



- supervise the design, planning and maintenance of sport and recreation facilities
- make sure facilities conform to fire and other safety standards
- plan and organise sporting events
- supervise office, facility and/or program staff
- identify staff training needs
- coordinate the business activities of a sport, or of a club
- report to various committees and/or government agencies
- prepare, implement and monitor budgets.

#### Specialisations

**Sports Development Manager** - works to increase the number of people playing a sport.

**Sports Facility Manager** - manages a sporting venue, such as an indoor swimming centre or an athletics track.

**Sports Marketing Manager** - works to improve the image and profile of the particular sport or event.

#### Personal Requirements

- a strong interest in sport and recreation
- good communication and interpersonal skills
- sound business ability
- must be prepared to travel and work irregular hours, including evenings and weekends.

#### Education and Training

To become a sports administrator you usually have to complete a degree at university with a major in sports management. You could also consider degrees in commerce, economics, finance, business, marketing, arts and IT that include management, financial and business skills. These courses are offered at most universities in Victoria.

A strong background in sport (such as that gained as a sports coach or sportsperson) will also be an advantage, especially if you undertake one of the general degrees listed above.

To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, accounting, business management, economics, health and human development, legal studies, physical education, biology, chemistry and physics are normally required. The various universities have different prerequisites and some may have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### Deakin University - Burwood Campus:

Bachelor of Exercise and Sport Science, majoring in sports (management), 3 years full time or equivalent

Bachelor of Business (Sport Management), 3 years full time or equivalent

Bachelor of Sport Development, 3 years full time or equivalent

##### La Trobe University - Bundoora Campus:

Bachelor of Event Management, majoring in sports (management), 3 years full time or equivalent

Bachelor of Sports Management, 3 years full time or equivalent

##### Monash University - Gippsland Campus:

Bachelor of Sports Promotion and Events Management, 3 years full time or equivalent

##### Monash University - Peninsula Campus:

Bachelor of Sport and Outdoor Recreation, 3 years full time

#### RMIT University - Bundoora Campus:

Bachelor of Applied Science (Exercise and Sport Science), majoring in sport (leisure management), 4 years full time

#### University of Ballarat - Mount Helen Campus:

Bachelor of Sport Management, 3 years full time or equivalent

#### Victoria University - Footscray Park Campus:

Bachelor of Sport and Recreation Management, 3 years full time or equivalent

#### Employment Opportunities

Sport in Australia has traditionally been administered by unpaid volunteers. Since sport has become more complex and businesslike, more clubs, associations and organisations are appointing trained professional administrators.

Sports administrators are employed mostly by sporting clubs, associations and organising bodies. Generally, smaller sports bodies employ sports administrators part time.

#### For Further Information

- Sportspeople ☎ 1800 634 388 (FREECALL)  
✉ [admin@sportspeople.com.au](mailto:admin@sportspeople.com.au) 🌐 [www.sportspeople.com.au](http://www.sportspeople.com.au)
- Australian Council for Health, Physical Education and Recreation Inc (National) ☎ (08) 8340 3388 ✉ [custserv@achper.org.au](mailto:custserv@achper.org.au)  
🌐 [www.achper.org.au](http://www.achper.org.au)
- Australian Fitness Network (National Office) ☎ (02) 8412 7400  
✉ [info@fitnessnetwork.com.au](mailto:info@fitnessnetwork.com.au) 🌐 [www.fitnessnetwork.com.au](http://www.fitnessnetwork.com.au)
- Victorian Institute of Sport ☎ (03) 9425 0000 ✉ [vis@vis.org.au](mailto:vis@vis.org.au)  
🌐 [www.vis.org.au](http://www.vis.org.au)

#### Related Jobs

Recreation Officer (p 348); Sports Coach (p 378); Sportsperson (p 381).

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### Sports Coach

Sports coaches teach individuals and teams how to improve the way they play their sport by analysing their performances, instructing players in relevant skills, and motivating and enhancing players' performances.

Sports coaches may perform the following tasks:

- observe individuals' performances to determine the level of instruction required
- teach techniques to help players acquire additional skills or improve existing skills
- supervise practice sessions
- plan training programs



## Stablehand

Also known as Groom and Strapper.

Stablehands assist with maintaining and cleaning stables and handling horses.

Stablehands may perform the following tasks:

- brush and groom, feed, handle and exercise horses, and lead them to their stables
- check horses for lameness, common injuries, ailments and infections
- give first aid, medication or other treatment to horses
- clean and maintain stables and training equipment
- accompany horses to registered race meetings, gymkhanas and equestrian events
- exercise horses during track work or equestrian activities.

With experience and sometimes further training, a stablehand may progress to stable supervisor. Some stablehands who show potential and are light in weight may become apprentice jockeys.

Stablehands start work early in the morning and may be required to work on weekends and public holidays. The work must be done in all kinds of weather. Long hours are usually involved.

### Personal Requirements

- good health
- capable of hard physical work
- genuinely interested in horses and their care.

### Education and Training

To become a stablehand you usually have to complete a traineeship in Racing (Stablehand). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Stablehands are employed in breeding, racing, trotting or riding stables, agistment (feeding) centres or farms. Some live-in jobs are available in both city and country areas. Due to the low wages, this occupation has a high turnover of staff, which results in a steady replacement demand.

To become a stablehand you do not need to ride, and can be of heavier build than a jockey.

There are also opportunities for self-employment as a horse trainer/breeder.

### For Further Information

- Equestrian Australia Limited ☎ (02) 8762 7777  
✉ info@efanational.com 🌐 www.equestrian.org.au
- Harness Racing Victoria ☎ (03) 8378 0200 ✉ info@hrv.org.au  
🌐 www.harness.org.au/vic.cfm
- Racing Victoria Ltd ☎ (03) 9258 4258  
✉ information@racingvictoria.net.au  
🌐 www.racingvictoria.net.au

### Related Jobs

Animal Attendant (p 66); Animal Technician (p 67); Horse Manager (p 214); Horse Trainer (p 215); Jockey (p 238).

## Stage Manager

Stage managers plan and coordinate rehearsals and performances, including supervision of the plotting and rehearsal of technical cues, props, stage elements and moving scenery.

Stage managers may perform the following tasks:

- analyse and interpret the script, plans, models and designs for all relevant technical and production information
- talk with management, designers and the director to determine requirements for rehearsal and performance
- undertake administrative functions including prioritising tasks and determining production resources such as time, finance, personnel and physical space
- prepare for rehearsals and obtain all necessary resources, such as props, costumes and settings
- prepare and distribute all necessary rehearsal, production and performance documentation
- prepare the prompt copy, which defines actors' calls and movements, technical cues, stage elements, props and moving scenery, and front-of-house communications
- organise the rehearsal space and process, including final transfer to the theatre
- supervise and direct backstage staff and members of the stage management team
- give cues for lights, sound, cast entrances, moving scenery and other performance elements
- make sure production resources are stored safely.

Stage managers work in all types of live performances. They work closely with production departments, management, the creative team and the performers. Stage managers may be required to travel extensively. They work long hours, including nights and weekends.

### Personal Requirements

- practical
- artistic flair
- authority and tact
- able to work as part of a team.

### Education and Training

To become a stage manager you usually need a diploma or degree in theatre or stage management, combined with extensive industry experience. To get into the courses below you usually need to gain your VCE or Year 12 with English, attend an interview, workshop or audition and/or submit a portfolio of work. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

### Diploma Courses

#### Box Hill Institute of TAFE - Whitehorse Campus:

Diploma of Live Production, Theatre and Events (Technical Production)

#### Swinburne University of Technology (TAFE) - Prahran Campus:

Diploma of Theatre Arts

#### University of Ballarat - SMB Ballarat Campus:

Diploma of Theatre Arts

Advanced Diploma of Live Production, Theatre and Events (Technical Production)

#### Victoria University - Footscray Nicholson Campus:

Diploma of Theatre Arts





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## Sportsperson

Also known as Athlete.

Professional sportspeople earn all or part of their living through participating in sporting events, either as individuals or as members of a team.

Professional sportspeople may perform the following tasks:

- maintain a high degree of expertise in their particular sport
- attend regular practice sessions and undertake private training to maintain the required standard of fitness
- take part in scheduled sporting competitions
- repair sporting equipment or organise its repair
- undertake sports promotional activities, demonstrations and television appearances
- coach individuals, groups and/or teams by demonstrating techniques and supervising practice.

Professional sportspeople usually specialise in one sport, such as Australian Rules football, basketball, boxing, cricket, golf, netball, rugby league, soccer, swimming, tennis and many others, although some may take part in more than one.

Most sportspeople compete as amateurs (unpaid) until they reach a sufficiently high standard to be offered payment for their performance.

### Specialisations

**Sports Commentator** - describes the progress of play during broadcasts of sporting events and explains the technicalities and the tactics of the sport to the audience.

**Sports Development Officer** - works for clubs, associations or state or territory sporting bodies promoting their sport or their club. They may visit schools, address pupils on the benefits of playing a particular sport or for a particular club, and organise demonstrations and activities relating to the skills of the sport.

### Personal Requirements

- physically fit
- dedicated to attaining and maintaining a high standard of skill and endurance in a particular sport
- good communication skills for promotional work
- willing to travel.

### Education and Training

You can work as a sportsperson without formal qualifications. However, a high level of expertise in your chosen sport is essential.

Sportspeople in a team sport will come under the guidance of a coach whose job it is to develop and refine their skills. Individual sportspeople usually find a coach to assist them to reach elite level.

Sportspeople who are still at school may elect to develop their skills by attending a specialist sports high school, which combines traditional school subjects with specialist sports coaching and competition in a wide range of sports.

Many sporting organisations offer traineeships to potential top-level sportspeople in specific sports. Training is also available in related

areas such as coaching, sport development, refereeing/umpiring and sports administration.

It is recommended that a sportsperson complete a traineeship in Sport (Career Oriented Participation), which will assist in the development of skills to improve their career prospects both during and after a career in professional sport. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

Many sportspeople study courses in sports-related areas such as sports science, human movement studies, physiotherapy, sports administration, sports coaching, sports journalism, event management, physical education and sports psychology. However, such studies are not essential for employment as a professional sportsperson. Relevant certificate and diploma courses are offered by Registered Training Organisations, including TAFE. Degree courses in these areas are available at most universities in Victoria. Check institution handbooks for full details.

Costs, duration and entry requirements may vary between courses. See the online entry for Sportsperson at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Additional Information

The Australian Sports Commission in Canberra offers scholarships to enable elite sportspeople to live and train at the Australian Institute of Sport. A range of 35 sports are covered, including a limited number to athletes with disabilities.

The Victorian Institute of Sport also offers scholarships and other assistance to elite sportspeople.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Sport Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

In all areas of sport, the number of top professional and amateur competitors is very small compared to the number of people aspiring to compete at a professional level. Earnings from sport for professional players depend on the individual's ability and the public popularity of the sport. Depending upon the sport, playing careers for sportspeople generally last no more than a few years.

Accomplished sportspeople may progress to employment as coaches, trainers, administrators or media personalities after retiring from their playing careers. Others may go into business ventures relating to sport, such as selling sporting equipment or clothing, or managing other sportspeople. Some pursue careers which they have established in other areas.

### For Further Information

- Sportspeople ☎ 1800 634 388 (FREECALL)  
 ✉ [admin@sportspeople.com.au](mailto:admin@sportspeople.com.au) 🌐 [www.sportspeople.com.au](http://www.sportspeople.com.au)
- Victorian Institute of Sport ☎ (03) 9425 0000 ✉ [vis@vis.org.au](mailto:vis@vis.org.au)  
 🌐 [www.vis.org.au](http://www.vis.org.au)

### Related Jobs

Dancer (p 140); Fitness Instructor (p 185); Jockey (p 238); Lifeguard (p 248); Sports Administrator (p 377); Sports Coach (p 378); Teacher - Physical Education (p 395).



**Degree Courses**  
**Australian Catholic University - Melbourne Campus:**  
 Bachelor of Exercise and Sports Science, 3 years full time or equivalent

**Charles Sturt University - Albury-Wodonga Campus:**  
 Bachelor of Sports Science, 3 years full time

**Deakin University - Burwood Campus:**

Bachelor of Exercise and Sport Science, 3 years full time or equivalent

**Monash University - Peninsula Campus:**

Bachelor of Sport and Outdoor Recreation, majoring in sports (coaching), 3 years full time

**RMIT University - Bundora Campus:**

Bachelor of Applied Science (Exercise and Sport Science), majoring in sports (coaching), 4 years full time

**University of Ballarat - Mount Helen Campus:**

Bachelor of Exercise and Sport Science, majoring in sport (coaching), 3 years full time or equivalent

**Victoria University - Footscray Park Campus:**

Bachelor of Exercise Science and Human Movement, 3 years full time or equivalent

#### Additional Information

It is recommended that coaches become accredited. The National Coaching Accreditation Scheme (NCAS), coordinated by the Australian Sports Commission, offers education, training and accreditation to coaches. More than 70 sports deliver NCAS registered programs which provide the industry standard qualification for coaches. Contact your national or state sporting organisation for information on how to become an accredited coach.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Sport Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

There are limited full-time positions for professional sports coaches. Coaches are employed by sporting clubs and associations, government agencies, government-funded centres (e.g. the Australian Institute of Sport), holiday resorts and centres specialising in particular sports (e.g. horse-riding schools), swimming centres, health clubs and community institutions. In some sports, coaches may be self-employed in a sports training centre that they own or lease. Many sports coaches also work on a voluntary basis.

There are a number of sports that have coaching development officers who are responsible for coordinating the many part-time and voluntary coaches who contribute to the sport.

Job opportunities depend on the number of people playing various sports, corporate sponsorship and media coverage of sporting events; the performance of Australian sporting teams and individuals and the level of community interest/involvement in these performances. Other factors include the acceptance of sports as part of a healthy lifestyle, the amount of money available to sporting clubs, the effectiveness of sports promotion, and the trend towards professionalism in many sports, including football, basketball, netball, hockey and soccer.

#### For Further Information

- Australian Fitness Network (National Office) ☎ (02) 8412 7400  
 info@fitnessnetwork.com.au • www.fitnessnetwork.com.au
- Sportpeople ☎ 1800 634 388 (FREECALL)  
 admin@sportpeople.com.au • www.sportpeople.com.au

- supervise the physical development of athletes
- organise and liaise with sports science support staff
- arrange entries into competitions
- plan and direct game strategy, sometimes in consultation with club officials
- analyse the progress of games or competitions, and give signals and instructions to players
- carry out after-competition analysis of performance and evaluate strategy
- undertake related administrative tasks such as booking venues, organising tours and budgeting
- travel with individuals and teams to competitions
- recruit players and other coaching staff.

**Personal Requirements**  
 • thorough understanding of preferred sport  
 • good communication skills  
 • good interpersonal skills  
 • enthusiastic, disciplined and dedicated  
 • flexible and innovative  
 • prepared to travel and to work long hours, evenings and weekends.

**Education and Training**  
 You can work as a sports coach without formal qualifications. However, entry to this occupation may be improved if you have qualifications in a relevant discipline.  
 Entry to the certificate and diploma courses below usually requires Year 12. To get into the degree courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, physical education, outdoor and environmental studies, psychology, health and human development, mathematics, chemistry and physics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information. You can also become a sports coach through a traineeship in Sport (Coaching). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

**Victoria University (TAFE Division) - Footscray Park Campus:**  
 Certificate IV in Sport - Coaching (entry via certificate III)

**TAFE Victoria - various locations:**  
 Certificate IV in Sport and Recreation

Certificate IV in Sport - Development

#### Diploma Courses

**Central Gippsland Institute of TAFE:**

Diploma of Sport - Coaching

**Victoria University (TAFE Division) - Footscray Park Campus:**

Diploma of Sport - Coaching

**TAFE Victoria - various locations:**

Diploma of Sport and Recreation

Diploma of Sport - Development



To get into the sports-related courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, biology, chemistry, physics, mathematics, physical education, health and human development, outdoor and environmental studies and psychology are normally required. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. Contact the universities you are interested in for more information as requirements may change.

Degree Courses

Australian Catholic University - Melbourne Campus:  
Bachelor of Exercise and Sports Science, 3 years full time or equivalent

Bachelor of Exercise and Health Science, 3 years full time or equivalent

Deakin University - Burwood, Geelong and Warrambool Campuses:  
Bachelor of Health Sciences, majoring in exercise science, 3 years full time or equivalent

Deakin University - Burwood Campus:

Bachelor of Exercise and Sport Science, 3 years full time or equivalent

RMIT University - Bundoora Campus:

Bachelor of Applied Science (Exercise and Sport Science), 4 years full time

University of Ballarat - Mount Helen Campus:

Bachelor of Exercise and Sport Science, 3 years full time or equivalent

Victoria University - Footscray Park Campus:

Bachelor of Exercise Science and Human Movement, 3 years full time or equivalent

Additional Information

The major employers of sports scientists are sporting academies (such as the Australian Institute of Sport) and professional sporting teams.

Employment Opportunities

Sports scientists work at sports institutes, sporting clinics, health studios and sporting associations. Many professionals working in sports medicine are self-employed and may subcontract their services. Clients include professional and social sportspeople.

Sports scientists may work as consultants in health, fitness or rehabilitation. Some sports scientists volunteer at sporting clubs.

For Further Information

• Exercise and Sports Science Australia (ESSA) ☎ (07) 3856 5622  
✉ info@essa.org.au ☎ www.essa.org.au

• Australian Institute of Sport ☎ www.ausport.gov.au/ais  
• Sports Medicine Australia (VIC) ☎ (03) 9674 8777

✉ general@vic.sma.org.au ☎ http://vic.sma.org.au

Related Jobs

Dietitian (p 147); Medical Practitioner (p 268); Nutritionist (p 298); Physiotherapist (p 319); Psychologist (p 337); Teacher - Physical Education (p 395).

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• Victorian Institute of Sport ☎ (03) 9425 0000 ✉ vis@vis.org.au  
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Related Jobs

Fitness Instructor (p 185); Recreation Officer (p 348); Sports Administrator (p 377); Sportsperson (p 381); Teacher - Physical Education (p 395).

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### Sports Scientist

Sports scientists assist sportspeople to achieve the best possible sporting performance, by applying knowledge and techniques from the areas of medicine, physiology, biomechanics (the study of human movement), motor control and development, nutrition, psychology and physiotherapy/massage.

Sports scientists may perform the following tasks:

- devise treatment and exercise programs that support athletes' preparation and recovery, and assist sportspeople to return to training or competition
- conduct experiments, make observations and interpret data in relation to sporting performances, and communicate findings to officials, athletes, coaches and other support staff
- design or assist in designing training programs for sportspeople to improve sporting performance without causing injury, or to strengthen particular areas of the body
- refer clients to medical and paramedical specialists such as orthopaedic surgeons, rheumatologists and physiotherapists
- assist with psychological issues of motivation and stress.

Sports scientists often attend training sessions and sporting fixtures to monitor sporting performances as well as working in an office or testing laboratory. They have a high level of contact with the public.

Specialisation

**Exercise Physiologist** - provides scientific support to sportspeople by studying how their bodies respond to physical activity. This can be done using various methods such as studying heart-rate data, analysing blood samples, or by measuring a sportsperson's strength and flexibility.

Personal Requirements

- interest in sport and fitness
- interest in medicine or the sciences
- good observation and problem-solving skills
- able to work with accuracy and attention to detail.

Education and Training

To become a sports scientist you usually have to study sports and/or exercise science or human movement studies at university. Alternatively, you may choose to complete a degree in a relevant area such as nutrition, physiotherapy or medicine, followed by further studies in sport. Degrees in these alternative areas are available at most universities in Victoria. For course details, check institution handbooks or see the entries for Dietitian, Medical Practitioner, Physiotherapist and Psychiatrist.



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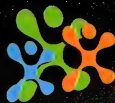
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# Have you considered a **career** in early childhood education and care?

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The demand for early childhood professionals is growing, so there are plenty of opportunities for you to work in preschools, kindergartens and child care centres around Australia.

The Australian Government is also making it easier for you to get the qualifications you need, by reducing TAFE fees and helping with your university HELP debt.

Information about early childhood education and care career opportunities is available under the Child Care Coordinator/ Child Care Worker and the Teacher – Early Childhood sections in this Guide.

## **To find out more**

**Visit** [deewr.gov.au/EarlyChildhood](http://deewr.gov.au/EarlyChildhood) and click on **Policy Agenda** then **Early Childhood Workforce**

**Phone** the mychild information line on 13 36 84



## Degree Courses

### Deakin University - Burwood Campus:

Bachelor of Creative Arts (Drama), majoring in theatre studies,  
3 years full time or equivalent

### La Trobe University - Bundoora Campus:

Bachelor of Arts, majoring in theatre studies, 3 years full time or  
equivalent

Bachelor of Creative Arts, majoring in theatre studies, 3 years full  
time or equivalent

### Monash University - Clayton Campus:

Bachelor of Arts, majoring in drama and theatre studies, 3 years full  
time or equivalent

### University of Melbourne - Southbank Campus:

Bachelor of Production, 3 years full time

## Additional Information

Each November the National Institute of Dramatic Art conducts  
interviews in all states for its Bachelor of Dramatic Art (Production).  
Details and application forms are available from August on their  
website at [www.nida.edu.au](http://www.nida.edu.au) or by ringing NIDA on (02) 9697 7600.

## Employment Opportunities

Stage managers are employed by film, TV and theatre production  
companies. As with other jobs in the arts industry, employment is  
generally on contract and runs for the duration of the particular  
production.

The demand for stage managers generally depends on the level of  
funding available for production. This is a highly competitive field.

## For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)


## Related Jobs

Actor (p 51); Film and Television Lighting Operator (p 177); Film,  
Stage and Television Director (p 178); Production Crew Member  
(p 334); Set Designer (p 366); Sound Technician (p 375).

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## Statistician

Statisticians design and apply statistical techniques for collecting and  
analysing data to produce useful information from areas such as  
science, technology, medicine, business, finance and government.

Statisticians may perform the following tasks:

- define precisely what is to be measured and decide which  
information to collect and from where
- work out the size of the sample to be tested and how the sample  
will be selected
- decide on the best method of collecting the information, whether by  
mail-out of questionnaires, experiments or survey interviews  
(telephone or face-to-face)
- make sure measurement resources are used efficiently
- interpret the data and produce relevant statistics to describe or  
infer particular trends and patterns

- develop statistical models to describe trends for events such as  
accidents, pollution, incidence of disease and economic trends
- collect facts, fit models using statistical computer systems, and  
develop and/or run statistical computer programs
- evaluate the accuracy of the obtained information, represent data  
graphically and report findings
- advise on the efficient design of experiments, sample surveys and  
observational studies and the analysis of results.

Statisticians may work by themselves, but they usually work in a team.  
The team may include research specialists as well as clerical and  
computing staff involved in data collection and analysis.

## Specialisations

**Biostatistician** - studies links between biological problems and their  
causes, in humans, animals, agriculture and botany. They usually  
work in hospitals, pharmaceutical companies or government health  
departments, and use computers to investigate risk factors for health  
problems.

**Mathematical Statistician** - develops new statistical theories and  
forecasting models, and designs sample surveys and quality control  
systems.

**Applied Statistician** - analyses data from a variety of sources,  
including designed experiments and observational studies, and writes  
statistical programs.

## Personal Requirements

- aptitude for analysis and research
- good at mathematics
- good reasoning and problem-solving skills
- good programming and computer skills
- good communication skills
- able to work independently or as part of a team.

## Education and Training

To become a statistician you usually have to study mathematics,  
econometrics or statistics at university. There are a number of different  
degrees offered by most universities. Relevant degrees include arts,  
commerce, economics, engineering and science, depending on the  
mathematical and statistical emphasis of subjects taken.

To get into these courses you usually need to gain your VCE. The  
various universities have different prerequisites and some have  
flexible entry requirements. Courses are also offered via distance  
education. See the Open Universities Australia website  
([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for  
more information.

## Employment Opportunities

Statisticians are employed by federal government departments, such  
as the Australian Bureau of Statistics (ABS) and the Commonwealth  
Scientific and Industrial Research Organisation (CSIRO). Statisticians  
also work in state and territory government departments, universities,  
financial institutions and research units of some larger corporations.  
Some work as statistical consultants to hospital administrators and  
superannuation corporations. Most statisticians work in major cities.

Advancement to supervisory and higher management positions is  
open to experienced and well-qualified statisticians.

## For Further Information

- Australian Bureau of Statistics (National Office) ☎ 1800 675 125  
(FREECALL) ✉ [recruitment@abs.gov.au](mailto:recruitment@abs.gov.au) ☎ [www.abs.gov.au](http://www.abs.gov.au)
- CSIRO Mathematical and Information Sciences (Headquarters,  
Sydney) ☎ (02) 9325 3100 ☎ [www.cmis.csiro.au](http://www.cmis.csiro.au)
- Statistical Society of Australia ☎ (02) 6251 3647  
✉ [eo@statsoc.org.au](mailto:eo@statsoc.org.au) ☎ [www.statsoc.org.au](http://www.statsoc.org.au)



## Related Jobs

Actuary (p 52); Agricultural and Resource Economist (p 56); Economist (p 154); Market Researcher (p 257); Mathematician (p 261); Research Officer (p 353).

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## Steel Fixer

Steel fixers position and secure steel bars or steel mesh to reinforce concrete structures.

Steel fixers may perform the following tasks:

- read and interpret working plans and steel lists for the job
- set out the work from these instructions
- make steel bars or mesh the required length by cutting them with bolt cutters, guillotines or power saws
- assemble the reinforcing bars or mesh by welding, wiring or clipping into predetermined locations within the concrete
- fabricate steel reinforcement as beams, footing pads or special units
- join prefabricated units together for large sections of high rise or civil projects, and position the reinforcement ready for concrete pours.

Steel fixers are mainly employed in the industrial/commercial sectors of the building industry on construction sites. They may also work in pre-cast concrete plants, as well as in areas of pre-stressing, post-stressing and tensioning, using hydraulic jacks and tensioning mechanisms.

### Personal Requirements

- physically fit
- enjoy practical work
- able to work at heights
- able to work as part of a team.

### Education and Training

You can work as a steel fixer without formal qualifications. You will probably get some informal training on the job.

### Additional Information

Industry standards require steel fixers to hold a licence to Perform High Risk Work issued by WorkSafe Victoria. To obtain a licence to Perform High Risk Work, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, and keep an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence, you need to be at least 18 years of age.

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Construction, Plumbing and

Services Integrated Framework that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

## Employment Opportunities

The majority of steel fixers are employed by building and construction companies or by sub-contractors.

Job prospects depend on the level of building and construction activity in the economy. Due to changes within the building industry, work opportunities can change substantially over a short period.

### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
🌐 [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) 🌐 [www.mbav.com.au](http://www.mbav.com.au)

## Related Jobs

Construction Worker (p 127); Rigger (p 354); Scaffolder (p 361).

## Stock and Station Agent

Stock and station agents advise and represent farmers and graziers in business transactions such as the buying and selling of livestock, wool, fertiliser, farming and grazing land, equipment and merchandise.

Stock and station agents may perform the following tasks:

- study market trends and prices
- arrange transport of stock to saleyards
- take prospective buyers to inspect properties for sale
- assist in selecting livestock, and commercial and stud stock
- value livestock and advise on different marketing options for stock
- arrange the penning and auction of livestock
- arrange clearing sales of machinery and plant equipment no longer required
- advise and assist clients in the management of agricultural or pastoral companies, stock or farming problems
- conduct sales of wool on behalf of clients on a commission basis
- sell a wide range of agricultural products including chemicals used in farming and grazing enterprises
- write reports on business transactions
- arrange finance for the buying of livestock or property
- act as agents for insurance companies
- arrange private sales between sellers and buyers.

Stock and station agents may specialise in livestock buying and/or selling, auctioneering, property and merchandise sales, arranging finance and insurance, pastoral inspections, and stud stock or wool. They may be classified as grain merchants, wool buyers or wool merchants.

Stock and station agents usually travel a lot by car, work long hours and are often required to contact clients during the evening.

With experience and possibly further training, stock and station agents may progress to senior positions such as branch manager and area manager, or to executive areas of finance, real estate and insurance.

### Personal Requirements

- interest in the rural industry
- initiative and self-motivation
- good organisational skills
- good communication skills.



## Education and Training

To become a stock and station agent you usually have to complete an accredited course in real estate. Entry to the courses below usually requires Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a stock and station agent through a traineeship in Property Services (Agency) or Property Services (Real Estate). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Short Courses

*Real Estate Institute of Victoria:*

Property Agent's Representative Course

*TAFE Victoria - various locations:*

Property Agent's Representative Course (Training Program)

### Certificate Courses

*Real Estate Institute of Victoria:*

Certificate IV in Property Services (Real Estate)

*TAFE Victoria - various locations:*

Certificate IV in Property Services (Real Estate)

*University of Ballarat - SMB Ballarat:*

Certificate III in Property Services - Agency

*Wodonga Institute of TAFE - Wodonga:*

Certificate III in Property Services - Agency

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Property Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Agents who deal in farms and properties must be either licensed real estate agents or agents' representatives (see entry under Real Estate Salesperson for course information). Stock and station agents who perform valuations must be qualified valuers (see entry under Valuer for course information).

The Australian Livestock and Property Agents Association, which is the national peak industry body for livestock and property agents, also offers online courses and certification in property practice, stock and station licensing and real estate licensing.

### Employment Opportunities

Stock and station agents may be employed by large pastoral companies or small private agencies. The demand for stock and station agents depends on the state of the rural industry, which is affected by factors such as interest rates, commodity markets, overseas prices for primary products and seasonal conditions.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Australian Livestock and Property Agents Association Ltd  
☎ (02) 9262 6633 ✉ [admin@alpa.net.au](mailto:admin@alpa.net.au) 🌐 [www.alpa.net.au](http://www.alpa.net.au)
- Recruitment Manager, Elders Ltd ☎ (08) 8425 5371  
🌐 [www.elders.com.au](http://www.elders.com.au)
- HR Services Team, Landmark Operations Limited  
✉ [asklandmark@landmark.com.au](mailto:asklandmark@landmark.com.au) 🌐 [www.landmark.com.au](http://www.landmark.com.au)

### Related Jobs

Accounts Clerk (p 50); Auctioneer (p 78); Farmer/Farm Manager (p 172); Insurance Officer (p 232); Office Administrator (p 300); Real Estate Salesperson (p 346); Valuer (p 424); Wool Classer (p 439).

## Stonemason

Also known as Lettercutter, Stone Fixer and Stonemason - Machinist.

Stonemasons cut and shape hard and soft stone blocks and masonry slabs for the construction and renovation of stone structures and monumental masonry (stonework for cemeteries).

Stonemasons may perform the following tasks:

- cut and shape stone using machine or hand tools, taking into account the characteristics of the stone being used
- cut and polish granite and marble for use in construction, such as for kitchen bench tops and bathroom vanity units
- design, cut and carve monumental masonry, such as memorial tablets and bases for statues, using templates for detailed work and a variety of chisels, punches and hammers, depending on the type of stone being used
- cut lettering into stonework by marking out the letters and then cutting or chiselling them with hand-held tools or sandblasting equipment
- construct walls using stone slabs and large masonry slab blocks
- lay stone paving
- lay granite or marble floor tiles
- fix stone facades to buildings
- repair and replace stonework on old buildings, churches and monuments.

Stonemasons often work in a noisy environment.

### Personal Requirements

- enjoy practical work
- physically fit
- able to work at heights
- able to work with your hands
- self-motivation
- aptitude for technical drawing and working with computers is an advantage.

### Education and Training

To become a stonemason you usually have to complete an apprenticeship in Stonemasonry (Monumental/Installation). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

### Employment Opportunities

Stonemasons are employed by construction companies to work on stone structures, and by monument fabricators to make monuments and carve lettering. Some are self-employed.

This is a small, specialised trade. Most stonemasons work in the renovation and maintenance of old buildings or in monumental masonry. The use of masonry in construction has largely been superseded by modern techniques.

Demand is also affected by the number of restoration programs for old buildings, and the trend for commercial stone facades, stone and terrazzo furniture and components.



The nature of a stonemason's job changes with the introduction of new techniques in cutting and forming stonework, requiring stonemasons to keep up to date with advanced equipment and the skills required to operate it.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ info@cpsisc.com.au  
🌐 www.cpsisc.com.au
- Construction, Forestry, Mining and Energy Union - Construction and General Division (VIC) ☎ (03) 9341 3444  
✉ queries@vic.cfmeu.asn.au 🌐 www.cfmeu.vic.com.au
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ licensing@worksafe.vic.gov.au 🌐 www.worksafe.vic.gov.au

#### Related Jobs

Bricklayer (p 93); Carpenter (p 105); Joiner (p 238); Tiler - Wall and Floor (p 406).

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## Storeperson

Also known as Despatch Clerk, Stores Assistant and Warehouse Assistant.

Storepersons receive, handle and despatch goods coming into, or going out of, stores or warehouses.

Storepersons may perform the following tasks:

- unload goods and check them against order forms
- catalogue or label items with storage details
- place goods in bins and on racks, or stack bulky items on floors
- complete orders by selecting goods from shelves and checking them off appropriate lists
- package and send out completed orders to customers
- move heavy packages using forklift machinery
- obtain details of the location and quantity of items in stock, using visual display units or computers
- enter details of received delivery slips, requisitions and invoices into computers
- count and record the number of items in store during stocktake
- advise supervisor on stock and re-ordering levels
- help keep the work area neat and tidy.

Storepersons may also work as shelf-stackers who fill up shelves in stores and supermarkets.

Storepersons may be required to lift or carry packages.

#### Personal Requirements

- enjoy practical work
- good eyesight (may be corrected)
- physically fit
- good memory and organisational skills
- safety conscious.

#### Education and Training

You can work as a storeperson without formal qualifications. You will probably get some informal training on the job.

You can also become a storeperson through a traineeship in Transport and Logistics (Warehousing and Storage). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics

Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Storepersons are often required to operate a forklift. See the entry for Forklift Operator.

#### Employment Opportunities

Demand for this occupation is widespread across most industries and in each state and territory. Major employers include manufacturers, container depots, food wholesalers and distributors. Computerisation and automation have impacted on warehousing, storage and retrieval techniques, and this has increased the demand for skilled workers, particularly those who are familiar with new technology.

Smaller enterprises often require workers to be multi-skilled. They may handle the stores function, but also deal with trade or retail sales.

Promotion to senior storeperson, sales clerk, stock clerk, sales representative or warehouse manager is possible with experience and further training.

#### For Further Information

- Transport and Logistics Industry Skills Council  
🌐 www.tlisc.com.au

#### Related Jobs

Airline Baggage and Freight Handler (p 64); Forklift Operator (p 195); Inventory and Supply Officer (p 235); Logistics Clerk (p 251); Transport Clerk (p 417); Waterside Worker (p 434).

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## Strata Managing Agent

Also known as Body Corporate Manager, Owners Corporation Manager and Strata Manager.

Strata managing agents are appointed by the owners of multi-unit properties to manage the financial and administrative affairs of their strata scheme.

Strata managing agents may perform the following tasks:

- arrange routine maintenance, repair and upkeep of the common property
- keep bank and other accounts for maintenance contributions (strata levies)
- pay accounts and outgoings
- maintain the strata records
- organise and conduct strata meetings
- arrange insurance.

Strata managing agents often work irregular hours. They spend much of their time dealing with the residents in the property they manage, contractors that work at the property, and various professionals including building consultants, solicitors and engineers.

Strata managing agents may offer management services to residential and commercial properties, retirement villages, hotels/resorts, industrial schemes and shopping centres.

#### Specialisations

**Facilities Manager** - organises, controls and coordinates the strategic and operational management of a wide range of facilities in the built environment, including office blocks, shopping centres, recreation facilities and many others.

**Principal (Strata Management Agency)** - manages the activities of other strata managing agents within an organisation.

#### Personal Requirements

- good communication and negotiation skills
- good personal presentation and a pleasant manner
- able to work in a team



- able to meet deadlines
- good organisational skills and attention to detail
- public speaking skills
- mediation skills
- numeracy and writing skills
- computer literacy.

#### Education and Training

You can work as a strata managing agent without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications and/or experience in real estate or property management.

Entry to the certificate courses below usually requires at least Year 10. Courses are also offered by distance education. Contact the institutions you are interested in for more information as requirements may change.

You can also become a strata managing agent through a traineeship in Property Services (Real Estate). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

#### Certificate Courses

*Real Estate Institute of Victoria - Camberwell:*

Certificate IV in Property (Real Estate)

*TAFE Victoria - various locations:*

Certificate IV in Property Services (Real Estate)

*RMIT University (TAFE Division) - City Campus:*

Certificate IV in Property Services (Operations)

#### Additional Information

As the affiliate member association of the National Community Titles Institute in Victoria, the Owners Corporation Victoria (Inc) offers education and training in accordance with industry requirements.

To work as a strata managing agent in Victoria, your employing organisation must be registered with the Victorian Business Licensing Authority. You also need to be at least 18 years of age.

#### Employment Opportunities

The growth in multi-unit housing in inner-city suburbs and the ageing of the population, which is generating growth in retirement villages, has increased demand for strata management services.

#### For Further Information

- National Community Titles Institute ☎ (07) 3257 3920  
🌐 [www.ncti.org.au](http://www.ncti.org.au)
- Owners Corporations Victoria, Inc ☎ (03) 9416 4688  
🌐 [www.ocv.org.au](http://www.ocv.org.au)
- The Real Estate Institute of Victoria Ltd ☎ (03) 9205 6666  
✉ [training@reiv.com.au](mailto:training@reiv.com.au) 🌐 [www.reiv.com.au](http://www.reiv.com.au)

#### Related Jobs

Handyperson (p 209); Insurance Agent (p 230); Land Economist (p 241); Real Estate Salesperson (p 346); Valuer (p 424).

## Stunt Performer

Stunt performers undertake dangerous acts in order to entertain, including replacing film actors in dangerous scenes, performing with the greatest visual impact and the smallest safety risk.

Stunt performers may perform the following tasks:

- jump from high buildings
- drive cars and motorcycles at fast speeds and crash vehicles
- enter flaming buildings or (with safety procedures) set themselves on fire

- perform stunts on horses, boats, trucks and water skis
- check scripts in regard to safety aspects and provide safety reports
- oversee performers on set and provide advice or help with safety.

Stunt performers carry out acts that look spectacular or appear dangerous, using timing and props to minimise risks. It takes experience and a lot of time to work out a logical procedure for executing stunt work.

Stunt work can be physically demanding and may require a lot of time spent underwater or underground. Hours can be long and varied (particularly for film work), and early starts and late finishes are common.

#### Personal Requirements

- quick reflexes and flexibility
- good eyesight (may be corrected)
- a sense of timing
- physically fit
- responsible attitude towards safety.

#### Education and Training

You can work as a stunt performer without formal qualifications, but you will need to obtain a special grading from the Media, Entertainment and Arts Alliance before working. Employers usually like at least Year 10.

#### Additional Information

To meet requirements for grading set by the Media, Entertainment and Arts Alliance, stunt performers must demonstrate competency in four out of five categories: Body Control, Heights, Vehicles, Animals (Riding and Driving) or Water. Competency in Body Control is compulsory. Completion of courses, previous experience or licences may be required to demonstrate competency in a category.

A current Senior First Aid Certificate is also required.

#### Employment Opportunities

Stunt performers work on contract for film companies, television stations and video production houses. They may also work in a variety of entertainment centres, including circuses, shopping centres and showgrounds.

Most stunt performers start as assistants. Extensive experience is needed to gain the necessary skills. Success is likely to depend on ability and motivation, while demand is determined by the level of investment in the television/film industry and public interest in live performance.

With experience and completion of further grading, stunt performers may become safety supervisors or stunt coordinators.

#### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Actor (p 51); Entertainer (p 166).

## Survey Assistant

Also known as Chainperson, Survey Hand and Surveyor's Field Assistant.

Survey assistants help surveyors determine the position, shape and elevation of the Earth's natural features, such as hills, valleys, rivers and lakes, and to determine land boundaries for housing estates, building sites, reservoirs, roads and drainage systems.



Survey assistants may perform the following tasks:

- clear vegetation and debris so that measurements may be taken
- transport, assemble, dismantle and maintain prospecting and surveying equipment
- peg out boundaries and construction works
- collect and label samples as directed
- assist surveyors and/or survey technicians in measuring angles, distances and elevations using tape, steel band, or more sophisticated equipment that uses radio and light waves
- record measurements manually or in an electronic field-data recorder.

Survey assistants work in a range of surveying areas, such as land (cadastral), hydrographic (surveys of waterways), engineering and mining.

They are required to work outdoors on survey sites, and they may work in remote areas for prolonged periods. If employed in mine surveying, they may be required to work underground.

#### Personal Requirements

- keen observation skills
- able to work accurately and carefully
- able to work as part of a team.

#### Education and Training

You can work as a survey assistant without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications. Employers usually like at least Year 10, some prefer Year 12.

Entry to the certificate courses below usually requires Year 12. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a survey assistant through a traineeship in Spatial Information Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Goulburn Ovens Institute of TAFE - Fryers Street Campus:*

Certificate III in Spatial Information Services

*RMIT University (TAFE Division) - City Campus:*

Certificate III in Spatial Information Services

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Property Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Survey assistants may work for government departments and authorities such as those responsible for roads, land administration and minerals and energy, or for private enterprises such as mining companies, land developers or surveying and cartographic firms.

#### For Further Information

- Spatial Industries Business Association (National Office)  
☎ (02) 6282 5793 ✉ dhocking@spatialbusiness.org  
🌐 www.spatialbusiness.org
- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ support@sssi.org.au  
🌐 www.spatialsciences.org.au
- Association of Consulting Surveyors (Victoria) Inc  
☎ (03) 9326 9700 ✉ acsv@acsv.com.au  
🌐 www.acsv.com.au

- What is Surveying? ✉ trysurveying@alifewithoutlimits.com.au  
🌐 www.alifewithoutlimits.com.au

#### Related Jobs

Architectural Technician (p 71); Geoscience Technician (p 205); Science Field Officer (p 362); Surveying Technician (p 388); Surveyor (p 389).

## Surveying Technician ✱

Also known as Surveying Associate and Spatial Information Technician.

Surveying technicians collect and analyse information and develop plans for surveyors and related professionals. They provide the basic information required for land development and redevelopment, including such activities as road-building, construction projects and subdivision of land.

Surveying technicians may perform the following tasks:

- collect and analyse survey data, source maps, photographs, computer records and other information
- take measurements and make observations from aerial photographs
- take measurements associated with the management of natural resources and mining activities
- draw up plans by recording information, making calculations and plotting information into the required format - this is done either by hand or on a computer using a computer-aided design (CAD) program
- make maps showing features and associated information
- set out marks to locate construction activities
- store data in geographic information systems (GIS) and undertake activities such as enquiries, reports and plot production
- operate and manage land-information computer systems.

Surveying technicians may specialise in surveying, survey drafting, land information, photogrammetry, remote sensing, hydrographic surveying, mining surveying, land development, spatial or geographic information systems, or engineering and construction surveying.

Surveying technicians work indoors and outdoors and may be required to travel.

#### Personal Requirements

- normal colour vision
- enjoy working with technology
- skilled in mathematics, science and computers
- able to supervise small teams of workers
- able to work neatly and accurately
- able to work as part of a team.

#### Education and Training

To become a surveying technician you usually have to complete a diploma or advanced diploma in spatial information services or surveying. Entry to the diploma courses below usually requires completion of Year 12. Entry to the advanced diploma course usually requires completion of a Diploma of Surveying or Spatial Information Services. As subjects can vary between institutions, you should contact your chosen institution for full details.

#### Diploma Courses

*RMIT University (TAFE Division) - City Campus:*

Diploma of Spatial Information Services

Diploma of Surveying

Advanced Diploma of Spatial Information Services

*South West Institute of TAFE - Warrambool Campus:*

Diploma of Spatial Information Services



### Additional Information

Experience in off-road vehicle driving may be an advantage.

Graduates may be eligible for Associate Membership to the Surveying and Spatial Sciences Institute.

### Employment Opportunities

Surveying technicians are employed by surveying or drafting companies, engineering firms, natural resource management firms, mining companies and government departments. Some technicians are self-employed as consultants and their clients may include land brokers, solicitors, surveyors, engineers, construction companies and mining companies. It is also possible for people in this occupation to work outside Australia in developing countries.

Demand for surveying technicians depends to a significant extent on population growth and the level of activity in the construction and mining industries. There is also an increasing demand for surveying technicians in the emerging areas of sustainability, environment management, climate change and emergency management.

### For Further Information

- Spatial Industries Business Association (National Office)  
☎ (02) 6282 5793 ✉ dhocking@spatialbusiness.org  
🌐 www.spatialbusiness.org
- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ support@sssi.org.au  
🌐 www.spatialsciences.org.au
- Association of Consulting Surveyors (Victoria) Inc  
☎ (03) 9326 9700 ✉ acsv@acsv.com.au  
🌐 www.acsv.com.au
- What is Surveying? ✉ trysurveying@alifewithoutlimits.com.au  
🌐 www.alifewithoutlimits.com.au

### Related Jobs

Architectural Technician (p 71); Cartographic Technician (p 106); Civil and Structural Engineering Associate (p 115); Geoscience Technician (p 205); Industrial Engineering Technologist (p 225); Science Field Officer (p 362); Survey Assistant (p 387); Surveyor (p 389).

## Surveyor 🌿

Also known as Geomatic Engineer.

Surveyors assemble and assess land and geographic information which is used for planning and regulation of the land, the sea and related structures.

Surveyors may perform the following tasks:

- work out the size and shape of an area of land
- work out the position of boundaries of public or private land
- compile and evaluate data and interpret codes of practice
- study the natural and social environment, measure land and marine resources and use the data in planning development in urban, rural and regional areas
- plan, develop and redevelop urban or rural property, land and buildings
- plan, measure and manage construction works
- produce plans, maps, files, charts and reports.

Surveyors may work in related fields such as photogrammetry, geographic information systems or remote sensing, and as project managers or financial advisers. After spending some years in the field, they often become managers.

Surveyors may spend a lot of time working outdoors. They also work in offices, analysing data and preparing plans and reports.

### Specialisations

**Cadastral/Land Surveyor** - marks property boundaries and records the information on plans and maps. They must be licensed to do this work, since the plans they make provide the basis for legal transactions of land parcels.

**Engineering Surveyor** - surveys routes for railways, roads, pipelines, canals, sewers and tunnels and makes detailed surveys of construction sites, dam sites, multistorey buildings and other engineering projects.

**Geodetic Surveyor** - uses signals from satellites such as the global positioning system (GPS), star observations, precise levelling and electronic distance measurements to locate positions accurately on the earth's surface for global mapping, and to monitor movements of the earth's crust.

**Mine Surveyor** - measures underground and open-cut mines in detail. Their surveys help mining organisations locate new mines safely, avoiding older mines, and allow connections to be made between different underground passages. Mine surveyors also establish the boundaries of mining claims in some states and territories.

**Remote Sensing Surveyor** - uses digital data from high-resolution satellites and airborne imagery systems to monitor changes in the surface features of the Earth.

**Topographic Surveyor** - provides information for the compilation of maps of physical features of the earth's surface, such as hills, valleys, rivers and lakes, by making field measurements and taking aerial photographs. They work on, above or below the surface of the land or sea, and often work with other professionals.

### Personal Requirements

- good at mathematics
- good organisational skills
- able to work neatly and accurately
- good health and good eyesight (may be corrected)
- able to work independently or as part of a team.

### Education and Training

To become a surveyor you usually have to study surveying or geomatic studies at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

#### RMIT University - City Campus:

Bachelor of Applied Science (Surveying), 4 years full time or equivalent

Bachelor of Science (Geospatial Science), majoring in surveying, 4 years full time or equivalent

#### University of Melbourne - Parkville Campus:

Bachelor of Environments, majoring in geomatics, 3 years full time or equivalent

Bachelor of Science, majoring in geomatics, 3 years full time or equivalent

### Additional Information

Graduates who wish to become registered or licensed by the Surveyors Board of Victoria are required to complete at least 360 days of supervised experience in surveying and an approved structured training program.



Only registered surveyors with cadastral endorsement by the Surveyors Board may define property boundaries in Victoria.

All states and territories of Australia and New Zealand have mutual recognition arrangements whereby registration as a surveyor in any one area automatically allows for registration anywhere else in these zones, on payment of the appropriate fees and provided minimum statutory requirements are met.

#### Employment Opportunities

Surveyors are employed in engineering firms, mining and construction companies, government departments and private practices.

Licensed surveyors may work for larger survey firms or may practice as partners in small firms. Larger firms have more scope for specialisation.

Nearly all mine surveyors are employed in the mining industry, with most being based in country centres. It is possible, with further study, to move to administrative or engineering positions, which may be based in capital cities.

The introduction of new technology such as satellite-positioning systems, electronic-distance and angle-measuring equipment, land and geographic information systems, remote-sensing equipment and the use of computers and computer graphics, has reduced the time required for surveying fieldwork.

#### For Further Information

- Spatial Industries Business Association (National Office)  
☎ (02) 6282 5793 ✉ dhocking@spatialbusiness.org  
🌐 www.spatialbusiness.org
- Surveying and Spatial Sciences Institute (National Office)  
☎ (02) 6282 2282 ✉ support@sssi.org.au  
🌐 www.spatialsciences.org.au
- What is Surveying? ✉ trysurveying@alifewithoutlimits.com.au  
🌐 www.alifewithoutlimits.com.au

#### Related Jobs

Cartographer (p 106); Cartographic Technician (p 106); Civil Engineer (p 116); Geographer (p 200); Geographic Information Systems Officer (p 201); Hydrographer (p 220); Mining Engineer (p 278); Survey Assistant (p 387); Surveying Technician (p 388); Urban and Regional Planner (p 423).

## Systems Designer (Information Technology)

Also known as Systems Engineer and Solutions Architect.

Systems designers (IT) create detailed design documentation for the development and integration of computer systems to meet the needs of businesses.

Systems designers may perform the following tasks:

- work with analysts on the feasibility and workability of a conceptual design by taking technical specifications prepared by the analyst and designing system components to meet the stated need
- draw up detailed design documentation including charts and diagrams that indicate the various components involved

- prepare instructions for programmer implementation
- talk with other team members (analysts and programmers) to check functionality back to systems specifications, and develop solutions as problems or issues arise
- design monitoring and performance measurement processes.

#### Specialisations

**Applications System Designer** - undertakes design tasks for business computer systems such as payroll or stock control.

**Database Design Specialist** - plays an important role in devising databases to suit large data acquisition, storage and retrieval requirements. Designers develop database solutions that satisfy client need for high-speed access, multiple views of the same information, accuracy and security, and the sharing of information between systems.

**Network Designer** - is generally involved in design functions in contexts that include in-house networks or larger, distributed mainframe systems. Design work in this context can be very complex, with large numbers of protocols, platforms and software solutions that need to communicate with each other.

**Operations Systems Designer** - is involved in the design and implementation of operational systems, with the objective of optimising systems performance. The focus is on operational systems such as mainframes, desktop and mid-range solutions.

**Software Designer** - works in the area of design and modification of the operating environment software that links computer software and hardware. The role is sometimes also described as Software Engineer, implying some knowledge of the associated hardware on which the software runs.

**Systems Architect** - examines the hardware requirements that support systems implementation across personal computers, mainframes or networks.

**Systems Designer (Research)** - specialises in systems investigation and research for the ongoing development of hardware and software.

#### Personal Requirements

- able to understand and solve complex problems
- logical and analytical approach to solving problems
- good communication skills
- able to work independently or as part of a team
- able to direct the work of others
- willing to actively maintain personal skills and knowledge of IT.

#### Education and Training

To become a systems designer you usually need a degree in information technology, computer science or computer engineering, specialising in computing systems, with substantial systems engineering industry experience. To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the universities you are interested in for more information as requirements may change.

**www.it.monash.edu**



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Relevant degree courses are offered by most universities in Victoria. Refer to institution handbooks for further details.

Courses are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for further information.

#### Additional Information

Memberships with the Australian Computer Society are available to those who hold or are working towards suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

#### Employment Opportunities

Systems designers work in a range of occupational environments. They may work in IT-specific industries, which can be large or small, as well as other industries requiring their expertise. With experience and sufficient start-up money there are opportunities for self-employment.

In some organisations, the systems design role may be combined with the analyst and/or programmer role. Career progression is generally from programmer/engineer to analyst to designer.

#### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)

#### Related Jobs

Analyst (Information Technology) (p 65); Computer Engineer (p 124); Computer Systems Auditor (p 125); Games Developer (p 198); Information Technology Administrator (p 227); Information Technology Educator (p 228); Programmer (Information Technology) (p 335); Web Designer/Developer (p 435).



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## T

### Taxidermist

Taxidermists prepare life-like 3-D representations of birds, mammals and other creatures for study purposes and display in museums, or as trophies and memorials.

Sometimes the actual skin (including fur, feathers or scales) is preserved and mounted on an artificial frame. At other times, the specimen is made completely with man-made materials. Taxidermists in museums also prepare specimens for study and research purposes, arranging skins and skeletal material to demonstrate structural and anatomical features.

Taxidermists may perform the following tasks:

- take measurements and note features of specimens
- reproduce specimens by moulding and casting with a variety of materials including plaster, plastic, fibreglass and foam
- remove and clean skin and treat with preservatives
- place skin on a model to reproduce the exact size and shape of the specimen
- conduct scientific research on skin specimens
- preserve and prepare skeletons through chemical and non-chemical treatment
- pose small animals and preserve them by freeze-drying
- prepare native and non-native animals for special exhibits
- maintain exhibits and specimens.

Taxidermists may be employed by museums as preparators, who also devise museum exhibits, including models and habitat displays.

#### Personal Requirements

- enjoy natural history and animal anatomy
- artistic interests such as sculpture, painting and drawing
- woodworking or carpentry skills
- patience and care
- attention to detail
- good hand-eye coordination.

#### Education and Training

You can work as a taxidermist without formal qualifications. You will probably get some informal training on the job in taxidermy studios. Entry requirements may vary, but employers generally require Year 10. Entry to this occupation may be improved if you have qualifications in animal science. It generally takes about 5 years to become competent.

#### Employment Opportunities

Taxidermists are employed in government departments, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), museums, universities, research laboratories and consulting firms. Greater opportunities may exist overseas in countries that have game animals.

#### For Further Information

- Australian Museum ☎ (02) 9320 6276 ✉ [hr@austmus.gov.au](mailto:hr@austmus.gov.au)  
🌐 [www.australianmuseum.net.au](http://www.australianmuseum.net.au)
- Museum Victoria Bookings and Enquiries ☎ 13 11 02  
✉ [jobs@museum.vic.gov.au](mailto:jobs@museum.vic.gov.au) 🌐 <http://museumvictoria.com.au>

#### Related Jobs

Artist (p 75); Conservator (p 127); Model Maker (p 280); Museum Officer (p 283).

### Teacher - Art

Also known as Teacher - Creative Arts, Teacher - Visual Arts and Art Teacher.

Art teachers in secondary schools teach students the practical skills, theory and history of art. Students receive tuition in aspects such as painting, drawing, printmaking, photography, sculpture and ceramics.

Art teachers in secondary schools may perform the following tasks:

- undertake general teaching tasks (see separate description for Teacher - Secondary)
- set up and/or maintain facilities such as photographic darkrooms, kilns for ceramic work, studios and store areas
- order and maintain art resources and materials within the budget allowance



- demonstrate the use of a variety of art materials and tools such as oils, watercolours, palettes, brushes, palette knives, pens, pencils, dyes, clay, fabric, canvas and paper
- inspire students and assist them to develop their creativity and self-expression through various art forms and media
- arrange for exhibitions of student work in and out of school.

Art teachers may specialise in one or more aspects of art in their tertiary studies (e.g. history and appreciation of art, ceramics, drawing, film and video, painting, pottery, printmaking, sculpture and visual communication), as well as studying the elements of design, graphics, product design and environmental studies.

#### Specialisation

**Private Art Teacher** - instructs students in the practice, theory and history of art. They usually specialise in one aspect of art and teach from their own home or studio.

#### Personal Requirements

- artistic talent
- enjoy teaching and creative work
- enthusiasm, patience and tact
- good communication skills
- a commitment to ongoing personal professional development
- high-level creative and organisational skills
- enjoy working with young people
- prepared to work out of school hours.

#### Education and Training

To become a secondary school art teacher you usually need to complete a degree with major studies in creative, graphic or visual arts, followed by a postgraduate qualification in education (e.g. a Graduate Diploma of Education). Alternatively, you can complete a 4-year integrated course in which the art and teaching components are taught throughout (e.g. a Bachelor of Education majoring in visual arts).

To get into these courses you usually need to gain your VCE, submit a portfolio and attend an interview. Entry to postgraduate courses usually requires a relevant bachelor degree. Most universities in Victoria offer relevant courses. Contact the universities you are interested in for more information as requirements may change.

Postgraduate courses in education are available at universities in Victoria. They are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) and institution handbooks for more information.

No formal qualifications are required to be a private art teacher, but they may be an advantage.

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information visit the VIT website at [www.vit.vic.edu.au](http://www.vit.vic.edu.au).

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

Art teachers in Victoria are employed in both public and private schools, generally at secondary school level. Your graduate employment prospects will be enhanced if you are flexible about where you are willing to work in your state/territory.

#### For Further Information

- Department of Education and Early Childhood Development  
☎ (03) 9637 2376 ✉ [newton.mark.m@edumail.vic.gov.au](mailto:newton.mark.m@edumail.vic.gov.au)  
🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)

#### Related Jobs

Artist (p 75); Craftsperson (p 135); Teacher - Music (p 394); Teacher - Primary (p 396); Teacher - Secondary (p 397).

## Teacher - Early Childhood

Also known as Pre-primary School Teacher and Preschool Teacher.

Early childhood teachers plan and conduct education programs for young children.

Early childhood teachers may perform the following tasks:

- plan activities using a variety of materials and equipment to develop good coordination, social skills, creativity, self-expression and an interest in learning
- promote language development and self-confidence through storytelling, drama, music and discussions
- help to organise and participate in excursions to enhance learning experiences
- encourage children to question and explore the world in which they live
- observe children to evaluate and record their progress and to detect signs of developmental disorder, ill health or emotional disturbance
- recommend appropriate programs for further development
- work with guidance officers, speech pathologists and psychologists to assist children with special needs
- help integrate children with special needs into mainstream classes
- promote health and safety concepts and social interaction with other children
- promote an awareness and appreciation of diversity in multicultural societies
- attend to sick children and those in need of first aid
- comfort children who are hurt or distressed
- assist children with their toileting and personal hygiene
- discuss aspects of children's development with parents and other educators
- discuss with parents the aims of the education program
- participate in community activities and parent/staff committees
- supervise and work with student teachers and trainee child care workers.

Early childhood teachers work in state or territory pre-school centres, early education classes, community kindergartens and community child care centres.

#### Personal Requirements

- able to relate to children and their families
- a keen desire to teach children
- willing to learn
- good problem-solving skills
- sound literacy and numeracy skills
- high level of planning and organisational skills
- enthusiasm, tact, patience and a sense of humour
- prepared to work out of school hours.

#### Education and Training

To become an early childhood teacher you usually have to study education at university specialising in early childhood. Alternatively, you can undertake a graduate diploma of education specialising in early childhood after completing a bachelor degree.



To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics and higher level mathematics are normally required. Entry to postgraduate courses usually requires a relevant bachelor degree as well as teaching experience or work experience with young children. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

**Australian Catholic University - Ballarat and Melbourne Campuses:**

Bachelor of Education (Early Childhood and Primary), 4 years full time or equivalent

**Charles Sturt University - Albury-Wodonga Campus:**

Bachelor of Education (Early Childhood and Primary), 4 years full time or equivalent

**La Trobe University - Bendigo Campus:**

Bachelor of Early Childhood Education, 4 years full time

**Monash University - Peninsula Campus:**

Bachelor of Early Childhood Education, 4 years full time

**RMIT University - Bundoora Campus:**

Bachelor of Education (Early Childhood), 3 years full time or equivalent

**RMIT University - Bundoora and Brunswick Campuses:**

Bachelor of Education, majoring in teaching (early childhood), 4 years full time or equivalent

**University of Ballarat - Horsham and Mount Helen Campuses:**

Bachelor of Education (Early Childhood), 4 years full time or equivalent

**Victoria University - St Albans Campus:**

Bachelor of Education (Early Childhood/Primary), 4 years full time

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information visit the VIT website.

To work in child care centres in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must also obtain a Working with Children Check.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

Early childhood teachers are employed in education and care services for children aged 0-8 years by state and territory education departments, independent schools or child care centres in metropolitan or remote areas, and Aboriginal communities.

Self-employment opportunities exist as the proprietor of a private preschool or child care centre. Other opportunities may be available as home tutors.

#### For Further Information

- Early Childhood Australia Inc (National Office) ☎ (02) 6242 1800 or 1800 356 900 (FREECALL) ✉ [eca@earlychildhood.org.au](mailto:eca@earlychildhood.org.au) 🌐 [www.earlychildhoodaustralia.org.au](http://www.earlychildhoodaustralia.org.au)
- Department of Education and Early Childhood Development ☎ (03) 9637 2376 ✉ [newton.mark.m@edumail.vic.gov.au](mailto:newton.mark.m@edumail.vic.gov.au) 🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)
- Victorian Institute of Teaching ☎ (03) 8601 5800 ✉ [vit@vit.vic.edu.au](mailto:vit@vit.vic.edu.au) 🌐 [www.vit.vic.edu.au](http://www.vit.vic.edu.au)

#### Related Jobs

Art Therapist (p 75); Child Care Coordinator (p 112); Child Care Worker (p 113); Nanny (p 286); Psychologist (p 337); Teacher - Primary (p 396); Teacher - Secondary (p 397); Welfare Worker (p 436).

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#### Thinking about a career in early childhood?

There are a number of Australian Government initiatives that could assist you.

#### To find out more

**Visit** [deewr.gov.au/EarlyChildhood](http://deewr.gov.au/EarlyChildhood) and click on Policy Agenda then Early Childhood Workforce

**Phone** the mychild information line on 13 36 84

## Teacher - English as a Second Language

Teachers of English as a Second Language (ESL) teach, and assist other teachers to teach, students whose first language is not English to become proficient with the English language.

Teachers of ESL may perform the following tasks:

- teach students basic or advanced English language skills
- teach students individually and in small groups out of the regular classroom, or assist students within normal classroom settings
- diagnose and assess English language competency in students whose first language is a language other than English
- provide assistance to regular classroom teachers by designing special teaching programs for students with English language difficulties
- provide advice concerning the community services available to assist students with English language difficulties.

#### Specialisation

**Adult Migrant Teacher** - teaches English to adult migrants whose native language is not English, in addition to such courses as 'an introduction to Australian society' to newly arrived migrants.

Adult migrant education teachers work with individuals and groups. They may work for the state or territory government or in private organisations, in educational institutions and in community venues.



They also work in distance learning programs, Home Tutor schemes and English in the Workplace programs.

#### Personal Requirements

- an understanding and acceptance of cultural differences
- an excellent grasp of English language structure
- able to identify the needs of individual students
- very good communication skills
- high-level organisational skills
- prepared to work out of school hours
- patience in dealing with students of differing abilities and from different cultures.

#### Education and Training

To become an ESL teacher you usually have to study primary or secondary education at university with a major in ESL. Alternatively, you can undertake a postgraduate qualification (e.g. a Graduate Diploma of Education) specialising in teaching ESL after completing a degree in teaching or education or in a relevant area (e.g. a Bachelor of Arts majoring in English).

To get into the degree courses you usually need to gain your VCE. Entry to postgraduate courses usually requires a relevant bachelor degree. Contact the universities you are interested in for more information as requirements may change.

A Graduate Certificate in Teaching English to Speakers of Other Languages (TESOL) is also available through Open Universities Australia. See [www.open.edu.au](http://www.open.edu.au) for more information.

Teachers in TAFE institutes require experience in designing and delivering TESOL programs to adults (currently 800 hours for full-time teachers and 200 hours for part-time teachers). A Certificate IV in Training and Assessment may also be required to teach at a TAFE institute. See the separate profile for Technical and Further Education Lecturer for full details.

#### Degree Courses

The following universities offer Bachelor of Education or Teaching in Primary or Secondary, 4 years full time or equivalent.

*Australian Catholic University - Ballarat and Melbourne Campuses*

*Charles Sturt University - Albury-Wodonga Campus*

*Deakin University - Burwood, Geelong, and Warrnambool Campuses*

*La Trobe University - Albury-Wodonga, Bendigo, Bundoora and Mildura Campuses*

*Monash University - Clayton, Gippsland and Peninsula Campuses*

*RMIT University - Bundoora, City and Brunswick Campuses*

*University of Ballarat - Mount Helen Campus*

*Victoria University - Footscray Park and St Albans Campuses*

#### Additional Information

Teachers in all Victorian schools (government and independent) need to be registered by the Victorian Institute of Teaching (VIT). For more information, visit the VIT website at [www.vit.vic.edu.au](http://www.vit.vic.edu.au).

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

ESL teachers work for the English Language and Literacy Service, TAFE institutes, universities, private language schools and government-funded agencies. They also work in primary and secondary schools. The demand for ESL teachers is dependent upon

the number of migrants and is linked to government policy on migrants entering Australia.

#### For Further Information

- Adult Multicultural Education Services (AMES Central)  
☎ 13 26 37 ☎ [www.ames.net.au](http://www.ames.net.au)
- VicTESOL ✉ [victesol@victesol.vic.edu.au](mailto:victesol@victesol.vic.edu.au)  
☎ [www.victesol.vic.edu.au](http://www.victesol.vic.edu.au)
- Department of Education and Early Childhood Development  
☎ (03) 9637 2376 ✉ [newton.mark.m@edumail.vic.gov.au](mailto:newton.mark.m@edumail.vic.gov.au)  
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#### Related Jobs

Interpreter (p 235); Teacher - Primary (p 396); Teacher - Secondary (p 397); Translator (p 415); Welfare Worker (p 436).

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## Teacher - Music

Also known as Teacher - Creative Arts and Music Teacher.

Music teachers develop students' interest in and appreciation of music through teaching theory, history and practical skills.

Music teachers in secondary schools may perform the following tasks:

- undertake general teaching tasks (see separate entry for Teacher - Secondary)
- illustrate basic musical concepts (e.g. time and rhythm) for students through activities such as playing recorded music or playing an instrument in class accompanied by students
- design creative activities to allow students to experience different musical styles, interpret musical scores and compose their own music
- teach music theory and history, including principles of harmony, counterpoint, form and analysis
- provide aural training through the performance of music, talks, discussion, use of audiovisual equipment, practical music and written assignments
- introduce individual students to particular instruments and assess students' needs in regard to instrumental training
- arrange for and timetable regular visits by instrumental teachers
- set up and conduct school choirs and orchestras, concert bands, rock bands and jazz ensembles
- organise student concerts and invite visiting musicians to schools for concerts and performance classes
- organise the repair, servicing and replacement of instruments and equipment
- introduce and develop individual student skills in computer-designed music.

#### Specialisations

**Instrumental Teacher** - visits schools to tutor individual students in particular instruments and to prepare them for music examinations. They may be education department employees or privately employed. Instrumental teachers may or may not have formal qualifications.

**Private Music Teacher** - usually specialises in teaching one instrument and may prepare pupils for examinations set by the Australian Music Examinations Board (AMEB).

Most private music teaching is done in the evenings or on weekends and usually performed in the teacher's home or in the home of their student.

#### Personal Requirements

- proficiency in at least one instrument
- enthusiasm for music and teaching
- good organisational skills



- able to communicate musical concepts and instructions clearly
- patient in dealing with students of differing abilities
- computer keyboard skills are an advantage for classroom work
- prepared to work out of school hours.

#### Education and Training

To become a music teacher you usually have to study education at university specialising in music or performing arts. Alternatively, you can undertake a music degree or an arts degree majoring in music, followed by a postgraduate qualification in secondary education.

To get into the courses below you usually need to gain your VCE and have AMEB qualifications. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics and music performance are normally required. Applicants may also be required to attend an audition and interview. Entry to postgraduate courses usually requires a relevant bachelor degree. Contact the universities you are interested in for more information as requirements may change.

Postgraduate courses in education are available at universities in Victoria. They are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) and institution handbooks for more information.

No formal qualifications are required to be a private music teacher, but they may be an advantage.

Bachelor degrees in music are widely available in Victoria. For full details, refer to the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) or institution handbooks.

#### Degree Courses

##### *Monash University - Clayton Campus:*

Bachelor of Music/Bachelor of Education (Secondary), 4 years full time

Bachelor of Music/Bachelor of Education (Primary), 4 years full time

##### *Victoria University - Footscray Park and St Albans Campuses:*

Bachelor of Education (Prep-Year 12), majoring in music, 4 years full time

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information, visit the VIT website at [www.vit.vic.edu.au](http://www.vit.vic.edu.au).

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Some people who have reached a certain level of musical competence set themselves up as private music teachers, even though they have not completed a training course.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

Employment opportunities for school-based teachers may arise in the state, territory, Catholic education and independent school systems as well as overseas. Demand for this occupation is mainly dependent on government funding and teacher resignation/retirement rates. Opportunities may be enhanced for teachers willing to work in remote/rural locations.

Opportunities for private music teachers depend on the ability of families to pay the fees and teachers' ability to promote their services.

Music teachers may teach groups of students ranging from pre-school through to university, or they may work with individual students. Employment opportunities are enhanced for those music teachers who keep up-to-date with instrumental technology and sound reinforcement systems.

#### For Further Information

- Department of Education and Early Childhood Development  
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🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)

#### Related Jobs

Actor (p 51); Musician (p 284); Teacher - Art (p 391); Teacher - Primary (p 396); Teacher - Secondary (p 397).

## Teacher - Physical Education

Also known as Health and Physical Education Teacher and Personal Development Teacher.

Physical education (PE) teachers instruct students in sports, recreational activities and healthy lifestyle issues, in order to encourage and develop physical fitness and skills, self-esteem and interpersonal skills.

PE teachers in secondary schools may perform the following tasks:

- undertake general teaching tasks (see separate description for Teacher - Secondary)
- prepare a yearly program of learning experiences that link physical activities with issues related to health and wellbeing
- teach a range of elective and senior courses depending on the needs and interests of their students
- teach the basic techniques and skills associated with team and individual sports, dance, gymnastics, track and field, aquatics and recreational activities such as canoeing and bushwalking
- plan and deliver activities that will assist in the skill progression of their students
- teach students about community and personal health issues including nutrition, sexuality, drug use and HIV/AIDS
- instruct students in the safety practices associated with different environments including swimming pools, gymnasiums and playing fields
- coordinate special events such as inter-school sports programs, swimming and athletic carnivals, and lifesaving programs
- present special days and seminars for senior students on various topics such as stress management, study skills and sexually transmitted diseases
- conduct compulsory health education programs which prepare the student for life.

Most PE teachers work in secondary schools and are usually qualified to teach at least one other subject.

#### Personal Requirements

- enjoy and be good at physical activity
- enthusiastic, patient and tactful
- enjoy working with young people
- good communication skills
- commitment to personal health and physical fitness
- high-level organisational skills
- prepared to work out of school hours.

#### Education and Training

To become a PE teacher you usually have to study education at university, specialising in human movement, health or physical education. Alternatively, you could complete a relevant degree (e.g. in



human movement), followed by a graduate diploma in education or teaching.

To get into degree courses you usually need to gain your VCE. Entry to postgraduate courses usually requires a relevant bachelor degree as well as teaching experience. Contact the universities you are interested in for more information as requirements may change.

Degree courses in physical education or education with a specialisation in physical education are widely available at universities throughout Victoria. Refer to institution handbooks for further information.

Postgraduate courses in education are available at universities in Victoria. They are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) and institution handbooks for more information.

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information visit the VIT website at [www.vit.vic.edu.au](http://www.vit.vic.edu.au).

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

PE teachers are employed in public and private schools. Entry to this field is competitive but prospects are better for those willing to take up positions anywhere in the state. There are some opportunities for relief or part-time work.

People with qualifications in physical education may also be employed in the leisure industry (e.g. such as fitness instructors or managers of recreation centres).

#### For Further Information

- Department of Education and Early Childhood Development  
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#### Related Jobs

Education Aide (p 156); Fitness Instructor (p 185); Physiotherapist (p 319); Recreation Officer (p 348); Sports Coach (p 378); Sports Scientist (p 380); Sportsperson (p 381); Teacher - Primary (p 396); Teacher - Secondary (p 397).

## Teacher - Primary

Primary school teachers educate primary school children, by planning and conducting an education program to develop literacy, numeracy and the physical, emotional, intellectual and social growth of their students.

Primary school teachers may perform the following tasks:

- prepare daily and longer term lesson plans in accordance with curriculum guidelines
- teach a full range of learning areas including English (reading, writing, speaking and listening), mathematics, science, technology, society and environment, creative arts, personal development, health, and physical education
- develop children's interests, abilities and coordination using creative activities such as art, music and sport

- use computers to assist in lesson preparation, teaching and reporting
- develop and maintain good working habits and discipline in classrooms
- carry out administrative duties
- supervise students during classes and at other times in the school day, including in the playground during breaks
- attend staff meetings and other training and development sessions
- take part in joint decision-making about educational issues
- assess and evaluate students' progress in written and oral work
- discuss students' progress and concerns with parents and administrators
- assist with and organise sporting activities, school concerts and excursions
- prepare for and attend parent/teacher interviews and other functions.

Primary school teachers are usually trained to teach the whole curriculum. Some undertake further studies to become specialist primary teachers who develop and teach programs for students with special needs, rural and isolated children, and children for whom English is a second language. In some schools, primary school teachers teach languages other than English if they have the appropriate qualifications, skills and experience.

Primary school teachers need to continually update their subject knowledge and teaching methods through private study and professional development activities. With further training and experience, a primary school teacher may be promoted to a position of educational leadership, such as primary school principal.

#### Specialisations

**Aboriginal Education Teacher (Primary)** - teaches specially designed programs to Indigenous primary school students.

**Teacher Librarian - Primary** - manages the school's learning resources in addition to undertaking the duties of a teacher. Teacher librarians play a key role in teaching cross-curricular skills in information literacy and provide professional development for other teachers. They help students to seek, critically evaluate, synthesise and present information using a range of resources and information technologies. They expose students to a variety of genres (writing styles) in print and digital formats, and promote the best quality literature and authors to reflect different cultures and themes. Teacher librarians make sure that the library resource centre is multi-functional and a focal point for student learning.

#### Personal Requirements

- enjoy working with children
- creative and organised
- patient in dealing with students of differing abilities
- able to communicate simply and clearly
- prepared to work out-of-school hours.

#### Education and Training

To become a primary teacher you usually have to study primary school teaching or education at university. Alternatively, you can undertake a postgraduate qualification specialising in primary education after completing a degree with relevant study areas.

To get into these courses you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Entry to postgraduate courses usually requires a relevant bachelor degree. Contact the universities you are interested in for more information as requirements may change.



Bachelor and postgraduate courses in primary education are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) for more information.

#### Degree Courses

The following universities offer Bachelor of Education (Early Childhood), Bachelor of Education (Early Childhood and Primary), Bachelor of Education (Primary), Bachelor of Teaching (Primary) or a combined Bachelor of Teaching or Education/Bachelor of Arts or Science, 3 or 4 years full time or equivalent.

*Australian Catholic University - Ballarat and Melbourne Campuses*  
*Charles Sturt University - Albury-Wodonga Campus*  
*Deakin University - Burwood, Geelong and Warrnambool Campuses*  
*La Trobe University - Bendigo and Mildura Campuses*  
*Monash University - Gippsland and Peninsula Campuses*  
*RMIT University - Bundoora and Brunswick Campuses*  
*University of Ballarat - Mount Helen and Horsham Campuses*  
*Victoria University - Footscray Park and St Albans Campuses*

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information visit the VIT website.

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

Prospects of employment are generally enhanced by a willingness to work, initially, anywhere in the state.

#### For Further Information

- Department of Education and Early Childhood Development  
 ☎ (03) 9637 2376 ✉ [newton.mark.m@edumail.vic.gov.au](mailto:newton.mark.m@edumail.vic.gov.au)  
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- Victorian Institute of Teaching ☎ (03) 8601 5800  
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#### Related Jobs

Child Care Worker (p 113); Education Aide (p 156); Librarian (p 246); Mathematician (p 261); Multimedia Developer (p 281); Nanny (p 286); Teacher - Art (p 391); Teacher - Early Childhood (p 392); Teacher - English as a Second Language (p 393); Teacher - Music (p 394); Teacher - Physical Education (p 395); Teacher - Secondary (p 397); Teacher - Special Education (p 398); Technical and Further Education Lecturer (p 399).

## Teacher - Secondary

Also known as High School Teacher.

Secondary school teachers teach one or more subjects within the school curriculum to secondary students.

Subjects include English, mathematics, science, art, health and physical education, technology, languages other than English, studies of society and environment, and home economics (see entry for Home Economist).

Secondary school teachers may perform the following tasks:

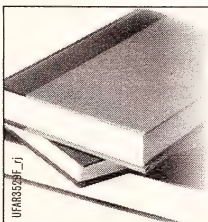
- prepare daily lessons and long-term teaching programs in accordance with state or territory system guidelines
- teach using a variety of methods including formal lessons, discussions, practical activities, experiments, projects, assignments and excursions, taking into account the differences in individual students
- use information technology to assist in lesson preparation, teaching and reporting
- set tests and exams, projects, assignments and homework, mark and correct assessments, and sort the results
- evaluate and report on the progress of their students, and discuss individual performance and problems with students and parents
- establish and maintain good working habits and discipline in classrooms and throughout the school
- supervise extra classes when other teachers are absent
- supervise students in the yard during lunchtime and other breaks
- carry out relevant administrative duties
- attend staff meetings, educational conferences and other professional development activities
- coordinate work experience and school-industry programs
- participate in other activities in partnership with parents and the school community, including parent/teacher nights, school council and other committees
- assist in organising sporting events, camping trips and other excursions
- be involved in distance education (e.g. teaching using radio and television transmission, correspondence, audiovisual and other multimedia resources)
- coordinate administrative support programs and the work of non-teaching staff in schools
- keep in touch and 'network' with other teachers
- work with other staff to revise the school's policies and curriculum to reflect changing student needs and government initiatives.

Secondary school teachers need to continually update their subject knowledge and teaching methods through private study and professional development activities. With further training and experience, a secondary school teacher may be promoted to a position of educational leadership, such as secondary school principal.

#### Specialisations

**Aboriginal Education Teacher (Secondary)** - teaches specially designed programs to Indigenous secondary school students.

**Teacher Librarian - Secondary** - manages the school's learning resources in addition to undertaking the duties of a teacher. Teacher librarians play a key role in teaching cross-curricular skills in information literacy and provide professional development for other teachers. They help students to seek, critically evaluate, synthesise



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and present information using a range of resources and information technologies. They expose students to a variety of genres (writing styles) in print and digital formats and promote the best quality literature and authors to reflect different cultures and themes. Teacher librarians make sure that the library resource centre is multi-functional and a focal point for student learning.

#### Personal Requirements

- enthusiasm for, and ability in, their chosen subject area and teaching
- high-level organisational skills
- able to communicate concepts and instructions clearly
- enjoy working with teenage children
- patient in dealing with students of differing abilities and from different cultures
- acceptance of the rights and needs of all individuals
- prepared to work out of school hours.

#### Education and Training

To become a secondary school teacher you usually need to complete a degree in a subject area related to current secondary school curriculum, followed by a postgraduate qualification in education (e.g. a Graduate Diploma of Education). Alternatively, you can complete a 4-year integrated course in which the subject area and teaching components are taught throughout (e.g. a Bachelor of Education majoring in visual arts). Degrees in subject areas relevant to secondary school curriculum are widely available at most universities in Victoria.

To get into these courses you usually need to gain your VCE.

Prerequisite subjects, or assumed knowledge, in English, mathematics, biology, chemistry, geography, physics and psychology are normally required. Entry to postgraduate courses usually requires a relevant bachelor degree. Contact the universities you are interested in for more information as requirements may change.

Postgraduate courses in secondary education are available at universities in Victoria. They are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) and institution handbooks for more information.

See also entries for Teacher - Art, Teacher - Music and Teacher - Physical Education for more subject-specific course information.

#### Degree Courses

The following universities offer a Bachelor of Education, Bachelor of Teaching or a degree combining qualifications in education and a subject area of interest, 4 years full time or equivalent.

*Australian Catholic University - Melbourne Campus*

*Charles Sturt University - Albury-Wodonga Campus*

*Deakin University - Burwood Campus*

*La Trobe University - Albury-Wodonga, Bendigo, Bundoora and Mildura Campuses*

*Monash University - Clayton and Peninsula Campuses*

*RMIT University - Bundoora and City Campuses*

*University of Ballarat - Mount Helen Campus*

*Victoria University - Footscray Park and St Albans Campuses*

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information visit the VIT website at [www.vit.vic.edu.au](http://www.vit.vic.edu.au).

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must

obtain a Working with Children Check issued by the Department of Justice.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

Secondary school teachers work in government and non-government schools and colleges. Some teachers are able to work in private practice, offering tutorial and subject-coaching services to students. Teachers should be prepared to move to areas of need (e.g. rural areas) to secure a job or obtain promotion to senior positions. Once employed, the prospects for advancement can be enhanced by obtaining higher qualifications.

#### For Further Information

- Department of Education and Early Childhood Development  
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🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)

#### Related Jobs

Career Adviser (p 104); Consumer Scientist (p 128); Education Aide (p 156); Geographer (p 200); Historian (p 212); Home Economist (p 213); Information Technology Educator (p 228); Librarian (p 246); Mathematician (p 261); Multimedia Developer (p 281); Teacher - Art (p 391); Teacher - Early Childhood (p 392); Teacher - English as a Second Language (p 393); Teacher - Music (p 394); Teacher - Physical Education (p 395); Teacher - Primary (p 396); Teacher - Special Education (p 398); Technical and Further Education Lecturer (p 399); Training Officer (p 414); Youth Worker (p 442).

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## Teacher - Special Education

Also known as Special Education Teacher and Support Teacher.

Special education teachers develop and conduct learning programs for pre-school, primary and secondary students who have learning difficulties or an impairment in their physical, sensory, emotional or intellectual abilities.



Some also teach students who are intellectually gifted.

Special education teachers may perform the following tasks:

- assess the abilities and potential of students requiring a specific study program using a variety of tests and other forms of assessment
- plan special courses of study to meet the needs of students
- teach academic subjects and practical self-help skills using different methods and aids to assist in the education and/or rehabilitation process
- develop and adapt curriculum to make it relevant for students with disabilities
- observe students to evaluate and record their progress, and to detect signs of any deterioration of developmental disorder, ill health or emotional disturbance
- work closely with other professionals including guidance officers, speech therapists and psychologists
- promote health and safety concepts and social interaction with other students
- assist students with their toileting, feeding and other personal matters (this may require lifting the students)
- discuss aspects of the student's development with parents and other educators
- discuss with parents the aims of the education program as a whole
- participate in community activities and on parent/staff committees.

Special education teachers may work in a special school or in a regular classroom, either with groups of students or on an individual basis. In mainstream schools, special education teachers are involved in the planning and implementation of programs to enable students with disabilities to function successfully in the regular classroom.

#### Specialisation

**Adult Literacy and Numeracy Teacher** - specialises in teaching literacy and numeracy skills such as reading, writing and mathematics to adults with low literacy, or other people with literacy or numeracy problems.

#### Personal Requirements

- dedication, patience and tact
- able to relate easily to children
- flexible in approach
- able to motivate students to learn
- able to communicate simply and clearly
- understanding of people's special needs
- prepared to work out of school hours.

#### Education and Training

To become a special education teacher you usually have to study education at university specialising in special education. Alternatively, you can undertake a graduate diploma of education specialising in special education after completing a degree in teaching or in relevant areas. These relevant areas include arts, social work or disability studies. Degrees in teaching and in these relevant areas are available at most universities in Victoria. Check institution handbooks for further details.

To get into the course below you usually need to gain your VCE with mathematics and English. Entry to postgraduate courses usually requires a relevant bachelor degree as well as teaching experience or experience working with people with special needs. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

**RMIT University - Bundoora Campus:**

Bachelor of Education/Bachelor of Applied Science (Disability),  
4 years full time or equivalent

#### Additional Information

Teachers in all Victorian government, Catholic and independent schools need to be registered by the Victorian Institute of Teaching (VIT). For more information visit the VIT website at [www.vit.vic.edu.au](http://www.vit.vic.edu.au).

Practical placements are usually required in education courses. Prior to undertaking practical placements in schools in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

Teachers are required by mandatory reporting laws to report suspected cases of child abuse or neglect.

#### Employment Opportunities

Special education teachers are employed by government, Catholic and independent schools and some special centres. Some teachers with special education qualifications are able to work in private practice, offering tutorial services for children with learning problems.

Demand for special education teachers is dependent on levels of government funding.

#### For Further Information

- Department of Education and Early Childhood Development  
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🌐 [www.education.vic.gov.au](http://www.education.vic.gov.au)

#### Related Jobs

Art Therapist (p 75); Career Adviser (p 104); Occupational Therapist (p 299); Psychologist (p 337); Special Care Worker (p 376); Teacher - Primary (p 396); Teacher - Secondary (p 397); Training Officer (p 414).

## Technical and Further Education Lecturer

Also known as Vocational Education and Training (VET) Lecturer and TAFE Lecturer.

Technical and further education (TAFE) lecturers teach vocational courses connected with industries and areas of work, to help people enter or re-enter the workforce.

TAFE lecturers teach subjects in which they have specialist knowledge and experience, such as building and construction, business and commerce, commercial photography, hairdressing, horticulture, hospitality and tourism, music, art, science, engineering and areas of health. Some TAFE lecturers teach in non-industry specific areas such as languages, literacy and general workplace preparation.

TAFE lecturers may perform the following tasks:

- research and write a syllabus which covers everything to be taught in a course
- prepare lessons and produce resources such as typed notes, diagrams, demonstrations and model patterns for use in teaching
- teach students in classrooms or workshops, providing theory and practical training through lectures, discussions, practical demonstrations and supervision
- assess students by setting and marking exams and assignments, and evaluating completed projects
- carry out administrative tasks, such as keeping student records, arranging timetables and ordering supplies of materials to be used in teaching
- counsel and advise students with career or personal problems, or refer them to counsellors
- attend meetings and serve on committees, or liaise with the community and industry.



TAFE lecturers may teach courses during the day, at night and on weekends.

TAFE lecturers need to constantly revise their own knowledge of their subject area and conduct industry and student surveys to ensure that course content and teaching methods are up to date.

#### Personal Requirements

- skill, knowledge and experience in their chosen field
- good organisational skills
- able to communicate concepts and instructions clearly
- enjoy working with young and older adults
- patience in dealing with students of differing abilities and from different cultures
- acceptance of the rights and needs of individual students.

#### Education and Training

To become a TAFE lecturer you usually need an appropriate qualification and/or experience in the field that you wish to teach in. This could be a trade, profession, craft or vocational area. For information on suitable courses in the field you wish to teach in, refer to the relevant job description in the Job Guide or on the website at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au).

Once you have qualifications or experience in your subject area, teaching or training qualifications may improve your employment prospects. A Certificate IV in Training and Assessment is recommended for casual and part-time staff, and a tertiary qualification in adult or vocational education is recommended for full-time staff.

Most TAFE institutes and many Registered Training Organisations in Victoria offer the Certificate IV in Training and Assessment.

Most universities in Victoria offer teacher education courses at bachelor degree and postgraduate levels. Contact the universities for details of courses and their entry requirements.

There are no specific adult education degree courses available in Victoria. The following courses are offered interstate. Contact the institutions you are interested in for full details.

#### Diploma Courses

##### *CQUniversity (QLD) - Distance Education:*

- Associate Degree in Learning Design, 2 years full time or equivalent
- Diploma of Learning Design, 1 year full time or equivalent

#### Degree Courses

##### *CQUniversity (QLD) - various locations:*

- Bachelor of Learning Design, 3 years full time or equivalent
- Bachelor of Learning Management (Secondary and Vocational Education and Training), 4 years full time or equivalent

##### *University of South Australia - Mawson Lakes Campus and Distance Education:*

- Bachelor of Education (Adult, Vocational and Workplace Learning), 4 years full time or equivalent

##### *University of the Sunshine Coast (QLD):*

- Bachelor of Education, 3 years full time or equivalent

#### Additional Information

Each TAFE institute is responsible for the employment of its own lecturers.

#### Employment Opportunities

TAFE/VET lecturers work at TAFE institutes, regional colleges, private colleges, corporate training centres and increasingly in workplaces.

#### For Further Information

For further information regarding this occupation, contact your local TAFE institute.

#### Related Jobs

Information Technology Educator (p 228); Teacher - Primary (p 396); Teacher - Secondary (p 397); Training Officer (p 414); University Lecturer (p 422).

## Telecommunications Technician

Also known as Electrotechnology (Data) Communications Technician.

Telecommunications technicians install, operate, maintain and repair telecommunications and broadcasting networks and equipment.

Telecommunications technicians may perform the following tasks:

- install network equipment and set up new telecommunications services
- make sure that equipment and circuit installations are of good quality
- place or terminate cables, and install jumpers, wires and strappings
- undertake proof tests such as wire testing, circuit commissioning and power tests
- assemble, erect, position and label items of equipment
- provide cost estimates to customers for installation of equipment
- install and maintain telephones and other business communication systems at customers' premises
- install, test and maintain all types of telecommunications, switching and transmission equipment, including telephone exchanges and the public telephone network
- set up computer hardware and install and customise software applications used in telecommunications
- carry out modifications to items of equipment
- analyse system faults with a high degree of diagnostic skill (to circuit board level)
- maintain and adhere to operational procedures and complete appropriate documentation
- take responsibility for tools, and plant and test equipment
- develop and maintain good relations with internal and external customers
- operate call tracing facilities when necessary.

Telecommunications technicians may specialise in the areas of cabling, Customer Access Network (CAN), or Customer Premises Equipment (CPE).

Telecommunications technicians work indoors and outdoors, and have considerable contact with customers in business or in private homes.

With the growth of digital telephony, particularly with business clients, the role of telecommunications technicians is increasingly becoming involved in the installation, customisation and troubleshooting of the computer software systems that drive modern telephone systems.

#### Personal Requirements

- enjoy technical and engineering activities
- able to perform routine repetitive tasks as well as non-routine or highly analytical tasks
- able to show initiative
- good with hands
- normal colour vision
- able to work at heights and in confined spaces
- good customer service skills
- able to work independently and as part of a team
- prepared to undertake continuous training and development.



### Education and Training

To become a telecommunications technician you usually have to complete a traineeship in Data and Voice Communications or Telecommunications Engineering. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Upon successful completion of training, telecommunications technicians are required to register with an Australian Communications and Media Authority accredited registrar in order to perform cabling. Visit [www.acma.gov.au](http://www.acma.gov.au) for more details.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Electrotechnology or Telecommunications Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Telecommunications technicians are employed by a variety of small, medium and large enterprises. These include large telecommunications carriers such as Telstra, Optus and Vodafone, network and exchange equipment suppliers, customer premises equipment suppliers and installation/maintenance service providers.

Demand for telecommunications technicians depends on the need for installation and maintenance of network equipment.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Optus Communications - Resourcing Centre ☎ 1300 300 163 (Toll Free) ☎ [www.optus.com.au/careers](http://www.optus.com.au/careers)
- Telstra Switchboard ☎ 1300 368 387 (Toll Free)  
✉ [telstra.careers@team.telstra.com](mailto:telstra.careers@team.telstra.com)  
☎ <http://careers.telstra.com>

### Related Jobs

Cable Jointer (p 100); Electrical Linesperson (p 158); Electrician (p 160); Electronics Engineering Associate (p 162).

## Telemarketer

Telemarketers telephone prospective customers to promote products and services and obtain sales or arrange sales visits.

Telemarketers may perform the following tasks:

- work from a script and a list of contacts to promote products or services by telephone
- create interest in a product or service and secure a sale or an agreement to see a sales representative
- process and arrange the despatch of products, information kits and brochures to interested clients
- arrange appointments with sales representatives
- record changes to contact details on a database and note follow-up action
- maintain statistics of calls made and successes achieved
- submit periodic reports on telemarketing activities and results
- receive calls and provide information or assist with any problems.

With experience and sometimes further training, it is possible to progress to supervisory and management positions.

Telemarketers are employed on a full-time, part-time or casual basis, and may be required to do shift and weekend work.

### Personal Requirements

- pleasant and friendly manner
- enjoy talking to people
- aptitude for working with computers
- high level of motivation
- able to work as part of a team.

### Education and Training

You can work as a telemarketer without formal qualifications. You will probably get some informal training on the job.

You can also become a telemarketer through a traineeship in Customer Contact or Wholesale. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Business Services or Retail Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Telemarketers work for a variety of private and public businesses and communication services, covering a range of roles such as sales and market research. They are employed in two broad types of telemarketing operations: in-bound telemarketing, where customers call the contact centre; and out-bound telemarketing, where telemarketers contact existing customers or phone new customers (known as cold-calling).

Around 50 per cent of the workforce work full time. There are opportunities to be promoted to leadership and supervisory positions.

### For Further Information

- Australian Teleservices Association ☎ (02) 9906 6163 or 1800 025 727 (FREECALL) ✉ [ata@ata.asn.au](mailto:ata@ata.asn.au)  
☎ [www.ata.asn.au](http://www.ata.asn.au)

### Related Jobs

Contact Centre Operator (p 129); Market Researcher (p 257); Sales Assistant (p 358).

## Textile Designer

Textile designers produce ideas and designs for printed, woven or knitted textiles, and many patterned surfaces.

Textile designers may perform the following tasks:

- design and produce original woven, knitted or printed fabrics
- design fashion fabrics for clothing, including jackets, shoes, socks, jeans, hats, bags and lingerie
- design fabrics for homeware items, including chairs, carpets, bed linen and tableware
- design surface patterns for laminates, wallpaper, plastics, tiles, toys and packaging
- make drawings of initial concepts and work with various yarns and fabrics
- make decisions about colour, structure, surface pattern, weight and yarn composition, taking into account the final use of the fabric
- translate designs into marketable fabrics
- use computer-aided design (CAD) systems



- inspect pre-production for colour and quality, and approve these or instruct changes to be made
- produce finished artwork, storyboards and colourways (colour tone work)
- prepare the despatch of design specifications for production/end use
- liaise with clients, sales staff, buyers and production team, while working to deadlines
- research and gather information about the target market.

Textile designers work within and alongside industries such as fashion, automotive, interior design and technical textiles. They may also work within a studio environment alongside other designers, or as freelance designers working with a client base.

#### Personal Requirements

- enjoy artistic and creative activities
- good drawing and visualisation skills
- able to understand and use colour
- interested in pattern and surface decoration
- creative and able to translate ideas into product
- good communication skills
- good problem-solving skills.

#### Education and Training

To become a textile designer you usually have to complete a diploma or degree in textile design.

Entry to the diploma courses below usually requires Year 10. To get into the degree courses you usually need to gain your VCE with English. In addition, applicants are usually required to contact the relevant institution to arrange an interview and the presentation of a portfolio of their recent work. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

#### Diploma Courses

*Box Hill Institute of TAFE - Whitehorse Campus:*

Diploma of Textile Arts

*RMIT University (TAFE Division) - Brunswick Campus:*

Diploma of Textile Design and Development

#### Degree Courses

*RMIT University - Brunswick Campus:*

Bachelor of Arts (Textile Design), 3 years full time

Bachelor of Applied Science (Textile Technology), 3 years full time or equivalent

#### Additional Information

Graduates may be eligible for full membership of the Design Institute of Australia. Student and associate membership is also offered.

#### Employment Opportunities

Textile designers are employed in a wide range of design and merchandising positions. They are employed as designers by studios, manufacturers or distributors of printed, woven and knitted fabrics.

Some go into business as textile designers and some as producers of fabrics working on individual commissions.

#### For Further Information

- Design Institute of Australia (National Office)  
☎ [www.design.org.au](http://www.design.org.au)
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)

#### Related Jobs

Artist (p 75); Fashion Designer (p 174); Graphic Designer (p 206); Industrial Designer (p 223); Interior Designer (p 234).

## Textile Mechanic

Textile mechanics set up, adjust and maintain machines used in textile, clothing and footwear industries.

Textile mechanics may perform the following tasks:

- use tools and instruments to set up machines
- start machines for trial runs to make sure they are running properly
- diagnose and fix processing faults on textile equipment
- inspect yarns and fabrics produced
- repair or replace faulty parts
- organise a shift to run smoothly and prevent problems from occurring
- adjust machine settings to meet design specifications.

Textile mechanics usually work shifts.

With experience and sometimes further training, textile mechanics may progress to technician, supervisory or quality control positions.

#### Specialisations

**Knitting Mechanic** - prepares patterning equipment which controls automatic knitting machines to produce a variety of knitted fabric and clothing, including hosiery, jumpers, shirts and underwear.

**Sewing Machine Mechanic** - assembles, adjusts, lubricates and repairs industrial sewing machines.

**Spinning Mechanic** - studies specifications to determine settings for machines that are associated with raw fibre through to finished thread such as wool and cotton. They then install and align gears, arrange yarns on the machines and adjust machines to produce different types and thicknesses of yarn.

**Tufting Mechanic** - works on machines which produce tufted carpet.

**Weaving Mechanic** - works on machines which convert yarns into fabrics such as blankets, carpets, towels and clothing material.

#### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected) and normal colour vision
- mechanical aptitude
- good hand-eye coordination
- able to work quickly to locate and fix problems
- good communication skills.

#### Education and Training

To become a textile mechanic you usually have to complete a traineeship in Engineering - Textile, Clothing and Footwear Mechanic. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Textile mechanics are employed by manufacturers of clothing, knitting, textiles, footwear, carpet and weaving mills. The nature of a textile mechanic's job is changing with the introduction of computerised machinery.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Clothing and Soft Furnishing Production Worker (p 121); Engineering Tradesperson - Mechanical (p 165); Engraver (p 166); Footwear



Worker (p 190); Instrument Fitter (p 229); Light Engine Mechanic (p 249); Textile Technician (p 403).

## Textile Technician

Textile technicians perform technical functions in various aspects of the design, production and quality control of textile products.

Textile technicians may perform the following tasks:

- analyse the structure and properties of raw materials used in textiles and prepare specifications for their production
- select and develop dyes to produce fabrics of the required colour
- obtain and analyse test data
- carry out or supervise testing and quality control
- engage in research, improving or developing new processes and materials.

They may specialise in dyeing and finishing, fabric design, weaving, knitting or spinning.

### Personal Requirements

- enjoy practical and manual activities
- methodical and thorough
- able to think logically
- problem-solving skills
- good communication skills
- good colour perception
- interested in chemistry.

### Education and Training

To become a textile technician you usually have to complete an apprenticeship in Textile Technology and Production. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Textile technicians may work in production areas and laboratories. Textile technicians are employed by manufacturers of floor coverings, clothing, soft furnishings, basic fabrics and specialised textiles. With experience, and sometimes further training, it is possible to become a dye house supervisor, senior laboratory technician or production manager.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

### Related Jobs

Laboratory Worker (p 240); Textile Mechanic (p 402).

## Theatre Mechanist

Also known as Stagehand.

Theatre mechanists prepare and put together sets for live performances, theatre, opera, musical concerts and dance performances.

Theatre mechanists may perform the following tasks:

- load and unload scenery
- build and set up stage scenery and suspended scenery (which is called 'flown' scenery)

- work out the best method for storage and setting of scenery in performances
- run the scenery movements in a performance
- operate the mechanical components of the stage including trap doors, lifting equipment and movable scenery
- carry out maintenance and repairs of stage scenery.

Theatre mechanists work as part of a small team. Working hours are irregular and may include long shifts, nights and weekends.

Experienced mechanists may be employed as theatre 'flypersons', whose work involves operating the flying systems which control flown scenery.

### Personal Requirements

- enjoy manual work
- able to use a variety of tools
- physically fit
- enjoy working with people in a team environment.

### Education and Training

You can work as a theatre mechanist without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the certificate and diploma courses below usually requires at least Year 10 and/or an audition or interview.

You can also become a theatre mechanist through a traineeship in Live Production, Theatre and Events (Technical Operations). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

*Goulburn Ovens Institute of TAFE - Benalla Campus:*

Certificate IV in Live Production, Theatre and Events (Technical Operations)

Certificate IV in Theatre Arts

*Holmesglen Institute of TAFE - Chadstone Campus:*

Certificate IV in Live Production, Theatre and Events (Technical Operations)

*University of Ballarat - SMB Ballarat Campus:*

Certificate IV in Theatre Arts

*Victoria University - Footscray Nicholson Campus:*

Certificate IV in Theatre Arts

### Diploma Courses

*Box Hill Institute of TAFE - Whitehorse Campus:*

Diploma of Live Production, Theatre and Events (Technical Production)

*Goulburn Ovens Institute of TAFE - Benalla Campus:*

Diploma of Live Production, Theatre and Events (Technical Production)

Diploma of Theatre Arts

*Swinburne University of Technology - TAFE Prahran Campus:*

Diploma of Live Production, Theatre and Events (Technical Production)

Diploma of Theatre Arts

*University of Ballarat - SMB Ballarat Campus:*

Diploma of Live Production, Theatre and Events (Technical Production)

Diploma of Theatre Arts

*Victoria University - Footscray Nicholson Campus:*

Diploma of Theatre Arts



### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Theatre mechanists are employed by theatres and other performance venues.

Occasionally, a producer will employ a head mechanist to tour with a major production. Most employment is casual, although it is usual to be employed for extended periods such as the run of a play. Some major entertainment centres employ permanent mechanists, but these positions are very rare.

Opportunities in this very competitive industry are mainly found in the major centres of entertainment production, such as Melbourne and Sydney, or overseas.

### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Film and Television Lighting Operator (p 177); Set Designer (p 366); Sound Technician (p 375).

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## Theatrical Costume Maker and Designer

Also known as Wardrobe Master or Mistress.

Theatrical costume makers and designers undertake or coordinate the design, manufacture and purchase of costumes for television, film and stage productions.

Theatrical costume makers and designers may perform the following tasks:

- talk with directors and costume designers about the types of costumes to be worn in a production
- estimate costs involved in supplying costumes and accessories such as hats, shoes and jewellery
- prepare material and labour budgets for supplying costumes for each production
- take the actors' measurements and coordinate garment, wig, hat and shoe fittings
- buy or hire costumes, or arrange to have them made
- undertake or supervise the making, alteration and repair of costumes
- make running repairs and alterations to costumes during the production
- make sure costumes are properly stored and cared for.

Theatrical costume makers and designers work as part of a production team and may be required to work long or irregular hours. They generally begin their careers as wardrobe assistants.

### Personal Requirements

- knowledge of fashion and historical or culturally specific costuming
- skills in pattern making and sewing
- able to work independently or as part of a team
- creative
- able to work under pressure
- good communication skills.

### Education and Training

You can work as a theatrical costume maker and designer without formal qualifications. However, a sound knowledge of the history of

costume and an extensive knowledge of dressmaking, costume making and materials, millinery techniques and sewing machine operations is essential. Training is usually on the job, although there are a number of courses available in costume design and related areas such as fashion design that may assist you in gaining employment.

Entry to the diploma course below usually requires Year 12. Entry to the degree course usually requires you to gain your VCE with English. Competition for places is strong and a portfolio, design exercise and interview may be required prior to enrolment. Contact the institution for more information as requirements may change.

You can also become a theatrical costume maker and designer through a traineeship in Costume for Performance. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Diploma Courses

*Swinburne Institute of Technology (TAFE Division) - Prahran Campus:*  
Diploma of Costume for Performance

### Degree Courses

*RMIT University - City Campus:*

Bachelor of Design (Fashion), 4 years full time

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment or Screen and Media or Film, TV and Radio Training Packages that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Each November the National Institute of Dramatic Art (NIDA) conducts interviews in all states for their courses. Contact NIDA on (02) 9697 7600 for further details and application forms.

### Employment Opportunities

Theatrical costume makers and designers are employed by theatre, dance and film companies, television stations and video production houses.

Many years of experience at an assistant level are usually needed before the industry recognises gained skills. Competition for jobs is very high and interstate and/or overseas experience will improve your employment prospects.

### For Further Information

- Australian Fashion Council ☎ (03) 8680 9400  
✉ [info@tfia.com.au](mailto:info@tfia.com.au) ☎ [www.australianfashioncouncil.com](http://www.australianfashioncouncil.com)
- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) ☎ [www.alliance.org.au](http://www.alliance.org.au)

### Related Jobs

Clothing Patternmaker (p 122); Fashion Coordinator (p 174); Fashion Designer (p 174); Make-up Artist (p 253); Set Designer (p 366).

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## Therapy Aide

Also known as Allied Health Assistant, Community Services Aide and Therapy Assistant.

Therapy aides assist professional staff by visiting clients, preparing written and verbal reports, and helping clients and carers with personal care tasks.



Therapy aides may perform the following tasks:

- provide general care and comfort to patients and ongoing therapy as directed
- guide and assist patients in the performance of craft, recreational and leisure activities
- assist in the training of disabled persons in self-care and daily living activities
- assist patients in the performance of routine physiotherapy or hydrotherapy exercises on an individual or group basis
- report on action taken, clients' progress and any unusual circumstances.

Therapy aides are not qualified to diagnose conditions or prescribe treatment. They work under the direction of professional staff such as doctors, social workers, physiotherapists, speech pathologists, occupational therapists, diversional therapists, home economists and nurses.

#### Specialisations

**Community Health Nursing Aide** - provides care for the sick, aged or disabled in the home, including personal and hygiene care such as showering, bathing and dressing, and ensures clients maintain a healthy diet.

**Occupational Therapy Aide** - assists clients at home or in clinical settings, under the direction of an occupational therapist. They may construct, adjust and fit aids and equipment, including splints, or assist clients in self-care, daily living skills, diversional and other rehabilitation activities with the aim of improving the safety and independence of the client.

**Physiotherapy Aide** - assists clients with exercise or rehabilitation programs; delivers, adjusts and demonstrates self-care and rehabilitation equipment; and assists in moving patients within their homes, or to hospitals or places of treatment.

**Speech Pathology Aide** - assists in the provision of therapy to clients once a speech pathologist has assessed and devised a suitable program including training clients in the use of electronic and non-electronic alternative communication systems and helping to prepare equipment to use with clients.

#### Personal Requirements

- maturity
- able to relate well to frail, sick or disabled people of all ages
- caring, understanding, patient and calm.

#### Education and Training

You can work as a therapy aide without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications. Entry to the certificate courses below usually requires Year 10.

You can also become a therapy aide through a traineeship in Health Service Assistance or Health Support Assistance (Allied Health Assistance). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

TAFE Victoria - various locations:

- Certificate III in Allied Health Assistance
- Certificate III in Health Services Assistance

#### Additional Information

A first aid certificate is usually required.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Health Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Therapy aides work in hospitals and hospices, physiotherapy and occupational therapy practices, and private homes. They also work in community centres, nursing homes, day centres, clinics and private practices.

Employment prospects are expected to grow with the ageing of the population.

#### For Further Information

- Community Services and Health Industry Skills Council Ltd  
☎ [www.careersthatsmatter.com.au](http://www.careersthatsmatter.com.au)
- Health Services Union of Australia (VIC) ☎ (03) 9341 3333  
☎ [www.hsuvic.asn.au](http://www.hsuvic.asn.au)

#### Related Jobs

Personal Care Worker (p 312); Ward Assistant (p 432).

## Ticket Seller

Ticket sellers sell tickets and make reservations for sporting or entertainment venues, tourist attractions and some travel arrangements.

Ticket sellers may perform the following tasks:

- receive customers' requests and answer enquiries
- check ticket availability and service times and make reservations
- accept payment from customers and issue tickets, receipts and change
- contact customers to cancel or confirm reservations and arrange accommodation.

Most ticket sellers work in offices or at entertainment venues, while some work in cubicles at ovals or showgrounds. Shift work and irregular hours may be involved. Many are employed on a part-time or casual basis.

#### Personal Requirements

- good communication skills
- good interpersonal skills
- able to work under pressure.

#### Education and Training

You can work as a ticket seller without formal qualifications, but employers generally require at least Year 10. You will probably get some informal training on the job.

You can also become a ticket seller through a traineeship in Live Production, Theatre and Events or Venues and Events (Customer Service). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Most ticket sellers are employed in the transport, sports and entertainment industries. Some work in ticketing companies or are



contracted to agents such as music stores. They also work at showgrounds, betting agencies and tourist agencies.

The types of tickets sold include lottery tickets, bus and ferry tickets and airline tickets. Many of the tasks of an airline ticket seller are very similar to that of a travel consultant. See the Travel Consultant profile for details. Ticket sellers may combine ticket selling with other sales activities.

#### For Further Information

- Innovation and Business Skills Australia ☎ [www.ibsa.org.au](http://www.ibsa.org.au)
- Australian Retailers Association (National Office) ☎ 1300 368 041  
✉ [info@retail.org.au](mailto:info@retail.org.au) ☎ [www.retail.org.au](http://www.retail.org.au)
- National Retail Association ☎ 1800 738 245 ✉ [info@nra.net.au](mailto:info@nra.net.au)  
☎ [www.nra.net.au](http://www.nra.net.au)

#### Related Jobs

Betting Clerk (p 87); Sales Assistant (p 358); Travel Consultant (p 418); Usher (p 424).

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## Tiler - Wall and Floor

Also known as Floor Tiler.

Wall and floor tilers lay ceramic, clay, slate, marble, glass and other types of tiles on external and internal walls and floors to provide protective and decorative finishes.

Wall and floor tilers may perform the following tasks:

- look at plans, measure and mark surfaces to be covered and lay out work
- prepare wall and floor surfaces by removing old tiles, grout, cement and adhesive
- use tile-cutting tools to cut and shape tiles needed for edges, corners, or around obstacles such as fittings and pipes
- attach tiles to surfaces, using correct adhesive, making sure that patterned tiles match
- space and even the tiles by using tools such as spirit levels, squares and plumb-lines
- prepare and apply grout, remove excess grout, clean and polish tiles
- lay floors of cement, granolithic, terrazzo or similar composition
- apply waterproofing systems.

Wall and floor tilers sometimes work in confined areas where bending and kneeling is required. They lift and carry cement and stacks of tiles. They sometimes work at heights using ladders or scaffolding. Most tilers work in small teams and move frequently from one job location to another.

#### Personal Requirements

- enjoy practical and manual work
- able to work at heights
- good hand-eye coordination
- able to make simple calculations
- able to work independently
- able to work neatly and accurately.

#### Education and Training

To become a wall and floor tiler you usually have to complete an apprenticeship in General Construction (Wall and Floor Tiling). Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

All those who work in the construction industry must undergo safety induction training and be issued with a Construction Induction Card (CIC). In Victoria, training is conducted by Registered Training Organisations authorised by WorkSafe Victoria.

#### Employment Opportunities

Most tilers are either self-employed or work for small privately owned firms which carry out contract building work. A few are employed by firms manufacturing or selling tiles. They work mainly in cities or wherever large-scale building projects are under construction. Much of the work is undertaken on new buildings, including houses, shops, offices, factories and swimming pools. Wall and floor tilers also carry out renovations to existing buildings.

Demand for wall and floor tilers is closely linked to the level of construction activity. Because of changes within the building industry, work opportunities can change over a short period of time.

#### For Further Information

- Construction and Property Services Industry Skills Council  
☎ (02) 6253 0002 ✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)  
☎ [www.cpsisc.com.au](http://www.cpsisc.com.au)
- Housing Industry Association (VIC) ☎ (03) 9280 8200  
✉ [vic\\_enquiry@hia.com.au](mailto:vic_enquiry@hia.com.au) ☎ <http://hia.com.au>
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) ☎ [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)
- Master Builders Association of Victoria ☎ (03) 9411 4555  
✉ [mbassist@mbav.com.au](mailto:mbassist@mbav.com.au) ☎ [www.mbav.com.au](http://www.mbav.com.au)

#### Related Jobs

Floor Finisher and Coverer (p 187); Plasterer (p 323); Roofer (p 356); Stonemason (p 385).

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## Timber and Wood Production Worker

Also known as Sawmill Hand, Timber Mill Worker and Timberyard Worker.

Timber and wood production workers assist in the milling, processing and merchandising of timber and timber products such as sawn timber, timber mouldings, roof trusses, wall frames, laminated beams, plywood, hardboard, fibreboard, laminates and veneered products.

Timber and wood production workers may perform the following tasks:

- operate bandsaws, gangsaws or circular saws to convert logs to usable timber
- support and guide timber being sawn
- undertake specialist operations such as kiln drying and visual or mechanical stress grading
- stack and pack timber and prepare it for despatch
- operate forklifts
- assist in the production of veneers, plywoods, laminates and paper products, often using sophisticated computerised equipment
- assemble fabricated products such as timber frames and trusses
- select types and grades of timber and measure and cut to order
- undertake administrative tasks such as record keeping, including tallying and ordering.

Most timber and wood production workers are employed in regional centres, in businesses ranging from small sawmills to large processing and manufacturing plants. The work can sometimes be physically demanding. However, working conditions have improved with the introduction of new technology and specialist equipment.



### Specialisations

**Kiln Operator (Wood Operator)** - uses solar, gas or steam kilns or ovens to dry and season timber and other wood products.

**Production Operator (Panel and Board)** - assists in the machining of panels, production of veneers and laminating of boards.

**Sawmill and Processing Plant Operator** - operates sawmilling and processing plants to cut and sort material.

**Timber Truss and Frame Production Fabricator** - operates a range of equipment to dress boards and timber, cut material and assemble products including timber roof and floor trusses.

### Personal Requirements

- enjoy practical work
- alert and safety conscious
- physically fit
- enjoy working with timber and timber products
- good hand-eye coordination
- basic mathematical ability.

### Education and Training

You can work as a timber and wood production worker without formal qualifications. You will probably get some informal training on the job.

You can also become a timber and wood production worker through an apprenticeship in Sawmilling and Processing, Timber Manufactured Products or Wood Panel Products. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Forest and Forest Products Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Timber and wood production workers usually start as general hands in a timber mill. They progress to stacking and assisting with sawing before being put in charge of a saw or other machinery.

### For Further Information

- ForestWorks ☎ (03) 9321 3500  
✉ forestworks@forestworks.com.au  
🌐 www.forestworks.com.au

### Related Jobs

Forest Worker (p 193); Saw Doctor (p 361).

## Timber Harvesting Operator

Also known as Logging Worker and Timber Harvester.

Harvesting operators undertake a range of tasks to do with the harvesting and maintenance of trees in natural forests and plantations, including logging, felling and sawing trees.

Harvesting operators may perform the following tasks:

- removing or trimming branches and tree tops
- loading and transporting logs
- planning the felling and bucking (sawing into logs) of trees
- operating manual and machine saws to fell trees and cut into logs
- operate machinery such as loading machines, excavators and bulldozers
- maintaining equipment

- clearing area around intended fall of each tree
- maintain strict occupational health and safety requirements.

Harvesting operators usually work under the supervision of a senior tree faller. They work outside, often in a team. They may be required to live in or travel to regional or remote areas to work.

### Specialisation

**Tree Faller** - operates manual and machine saws to fell trees and cut tree trunks into logs.

### Personal Requirements

- able to undertake manual and sometimes heavy work
- observant and methodical
- good communication skills
- enjoy outdoor work
- enjoy working in teams.

### Education and Training

You can work as a harvesting operator without formal qualifications. You will probably get some informal training on the job. However, entry to this occupation may be improved if you have qualifications.

Entry to the course below usually requires Year 10. Contact the institution for full details as requirements may change.

You can also become a harvesting operator through a traineeship in Harvesting and Haulage. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

*University of Ballarat - SMB Ballarat Campus:*  
Certificate II in Harvesting and Haulage

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Forest and Forest Products Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

To operate some of the machinery used in harvesting you may be required to pass competency-based training and be licensed. To work as a harvesting operator in Victoria you may need to hold a Timber Harvesting Operator's License issued by the Department of Sustainability and Environment.

### Employment Opportunities

Harvesting operators are employed by both private companies and the public sector to work in native forests or plantations. Harvesting is usually carried out by harvesting contractors working in small teams. With experience and/or further training, a harvesting operator may become a crew leader or foreman.

### For Further Information

- ForestWorks ☎ (03) 9321 3500  
✉ forestworks@forestworks.com.au  
🌐 www.forestworks.com.au
- Department of Primary Industries ☎ 13 61 86  
✉ customer.service@dpi.vic.gov.au  
🌐 http://new.dpi.vic.gov.au
- Department of Sustainability and Environment ☎ 13 61 86  
✉ customer.service@dse.vic.gov.au 🌐 www.dse.vic.gov.au

### Related Jobs

Horticultural Tradesperson (p 216).



## Tissue Culture Technician

Tissue culture technicians use various techniques to asexually reproduce live tissue (under laboratory conditions), producing specimens which are genetically identical to, or different from, the parent tissue.

This method of reproduction is commonly known as cloning. Tissue culture is used for a wide variety of commercially important agricultural and horticultural plants, in the propagation of rare and endangered plant species, and in the growth of tissues or cells used in health and medical research and treatments.

Tissue culture technicians may perform the following tasks:

- clean, sterilise and maintain equipment and facilities
- set up equipment
- select live material with the desired characteristics
- dissect and test for viruses and other diseases, and otherwise prepare selected tissues or cells for reproduction
- prepare reproductive and growth chemical solutions (medias) suitable for the species to be cloned
- chemically treat selected tissues or cells to induce genetic mutations
- place tissues or cells in sterile chemical solutions or medias and place on shakers to initiate reproduction or growth
- place reproduced plant material in sealed sterile containers containing a nutrient gel, then grow under controlled temperature and light conditions, repeating this process until the specimens are of sufficient size
- grow samples of cloned cells or organisms to maturity and monitor them for desirable or undesirable genetic mutation or characteristics (phenotypes)
- record results by using computers or other methods.

Tissue culture technicians mostly work in laboratories, with a small amount of field and shadehouse work.

### Personal Requirements

- good eyesight (may be corrected)
- good hand-eye coordination
- able to concentrate on detail
- able to keep records accurately.

### Education and Training

You can work as a tissue culture technician without formal qualifications. Entry to this occupation may be improved if you have qualifications.

Entry to the diploma courses below usually requires Year 12 or your VCE. As subjects can vary between institutions, you should contact the institutions you are interested in for full details.

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Laboratory Technology

Diploma of Laboratory Technology (Biotechnology)

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Diploma of Laboratory Technology (Biological and Environmental Testing)

### Employment Opportunities

Employment opportunities exist in universities and in federal, state and territory government organisations, as well as with private agricultural/horticultural firms and medical research laboratories and institutions.

Job prospects depend on the level of government funding, the extent of private sector research, and competition from people with degrees trying to enter the field by starting as a technician.

### For Further Information

- CSIRO ☎ [www.csiro.au](http://www.csiro.au)
- International Association for Plant Biotechnology (Australian Branch) ✉ [sharon.hamill@deedi.qld.gov.au](mailto:sharon.hamill@deedi.qld.gov.au)  
☎ [www.iapb-stl.org](http://www.iapb-stl.org)

### Related Jobs

Biotechnologist (p 89); Microbiologist (p 274); Pharmacologist (p 316); Toxicologist (p 410).

## Tool and Die Setter

Tool and die setters set up and adjust machine tools and other production machines, such as automatic lathes or multiple operation machines.

These machines are then operated by other workers, usually in situations where large-scale production techniques are used.

Tool and die setters may perform the following tasks:

- study job cards, drawings or other instructions and work out the sequence of machine operation
- set up the cutting or shaping tools or dies needed in machines or presses for precision work
- measure and mark reference points and fix work pieces, position and fasten cutting tools and adjust machine trowels using basic hand tools such as spanners, allen keys and screwdrivers
- adjust the guides, stops and other controls of machines to make sure that stock is machined to the sizes required
- test run machines, make adjustments as required, advise or instruct operators and watch the first operations
- periodically check product sizes and report any problems or re-adjust machines using measuring instruments.

A tool and die setter is usually responsible for setting up and running a number of machines in a factory or workshop. They work in factories and workshops that can be noisy at times. However, the work environment is generally spacious, ventilated and well lit. They wear protective clothing and may be required to stand for long periods.

### Personal Requirements

- enjoy practical work
- good hand-eye coordination
- patience
- accuracy
- good at technical activities.

### Education and Training

To become a tool and die setter you usually have to complete an apprenticeship in Engineering - Fabrication Trade. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Metal and Engineering Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Tool and die setters are mainly employed in the manufacture of plastic products, industrial machinery and equipment, fabricated metal



products, basic iron and steel, motor vehicles and parts, household appliances and electrical equipment.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)

#### Related Jobs

Engineering Tradesperson - Mechanical (p 165); Product Assembler (p 334).

## Tour Guide

Tour guides accompany visitors on local tours and guide tourists within a specific country, region, area, city or site.

They provide special information on history, archaeology, monuments and works of art; the environment, culture, natural and built attractions; places of interest; and any general matters of interest to the visitor.

Tour guides may perform the following tasks:

- meet members of a tour on arrival and make introductions
- coordinate pre-arranged accommodation and transport, and make sure that tour members are comfortable
- lead tour groups, drive coaches or limousines, advise tour members of local interest points, and prepare and present tour commentaries
- coordinate pre-arranged tour activities such as visits to local attractions, restaurants or shops, train rides, cruises, extended tours, white water rafting, bushwalking and mountaineering
- research and share general information on Australian Indigenous cultures
- attend to operational problems such as booking errors and amendments, lost luggage or illness
- provide first aid if needed
- keep in touch with transportation companies
- maintain written reports of daily activities and carry out other administrative work.

Being a tour guide is often physically demanding. During a tour, guides must be available at all times to answer questions and sort out problems. Manual work such as loading or unloading baggage or other equipment may be required.

Tour guides are often required to spend time away from home, especially those fulfilling the role of tour manager.

#### Personal Requirements

- maturity
- able to accept responsibility
- patience and tact
- understanding and acceptance of different cultures
- good organisational skills
- excellent general knowledge of Australia and regional touring areas
- problem solving skills and ability to think logically
- excellent communication and negotiation skills
- good health
- age limits may apply.

#### Education and Training

You can work as a tour guide without formal qualifications. You will probably get some informal training on the job. However, there are courses available that may assist you in gaining employment. Entry to this occupation may also be improved if you have relevant experience in the hospitality or tourism industries.

Entry to the certificate courses below usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a tour guide through a traineeship in Tourism (Guiding). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Certificate Courses

*Gordon Institute of TAFE - Geelong City Campus:*

Certificate III in Tourism (Guiding)

Certificate IV in Tourism (Guiding)

*Northern Melbourne Institute of TAFE - Preston Campus:*

Certificate IV in Tourism (Guiding)

*Swinburne University of Technology (TAFE Division) - Lilydale Campus:*

Certificate III in Tourism (Guiding)

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Certificate III in Tourism (Guiding)

*William Angliss Institute of TAFE - Melbourne Campus:*

Certificate IV in Tourism (Guiding)

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Companies that specialise in ecotourism or nature-based tourism may require tour guides to hold a degree or diploma in science, ecotourism or a similar subject. Some tour guides work at specific attractions such as museums, cultural centres, theme parks and sporting facilities.

First aid qualifications are generally required by employers.

#### Employment Opportunities

Most tour guides work casually on a contract or part-time basis, as employment tends to be seasonal. There are some opportunities for self-employment as a tour operator, tour manager or tour guide supervisor who trains tour guides.

Fluency in languages other than English is highly desirable. There is often a demand for tour guides who can speak Japanese, Korean, Mandarin, French and Italian.

#### For Further Information

- Ecotourism Australia ☎ (07) 3252 1530  
✉ [admin@ecotourism.org.au](mailto:admin@ecotourism.org.au) ☎ [www.ecotourism.org.au](http://www.ecotourism.org.au)
- Professional Tour Guide Association of Australia Inc  
☎ (03) 8601 1124 ✉ [tourguides@ptgaa.org.au](mailto:tourguides@ptgaa.org.au)  
☎ [www.tourguides.com.au](http://www.tourguides.com.au)
- Tourism Training Australia ☎ (02) 9286 3944  
✉ [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
☎ [www.tourismtraining.com.au](http://www.tourismtraining.com.au)

#### Related Jobs

Tourist Information Officer (p 409); Travel Consultant (p 418).

## Tourist Information Officer

Also known as Tourist Adviser and Visitor Information Officer.

Tourist information officers provide travel and accommodation information to tourists, promote tourism, and assess tourist opportunities for local communities.



Tourist information officers may perform the following tasks:

- answer questions from tourists, visitors, local residents and other tourism industry colleagues, over the counter or by phone
- make suggestions on tours, travel routes, accommodation and local attractions
- provide literature and information on local, interstate and international tours and places of interest
- maintain literature and/or brochure stocks
- sell souvenirs and other merchandise
- discuss transport, accommodation and tour availability and cost
- arrange bookings and documentation for travel and accommodation, and collect payment
- assist travel agents and tour operators in preparing itineraries for tourists
- undertake general clerical and office duties
- coordinate volunteer or part-time staff
- put together statistics concerning the number and nature of enquiries
- be responsible for overall presentation of the information centre.

#### Specialisation

**Tourism Manager** - manages a tourism information centre, which includes business management, staff supervision and development, office systems management and the provision of services. Tourism managers may also act as the executive officer for the local tourism committee and make sure services are in place to respond to day-to-day tourism enquiries. They check and regularly report to management on the status of the tourism marketing budget and give presentations on tourism awareness or new initiatives on behalf of the employers to industry, media, community or interest groups. They may also contribute to the planning, development and implementation of tourism marketing strategies and encourage community involvement and awareness.

#### Personal Requirements

- enjoy working with people
- good interpersonal, communication and customer service skills
- good organisational skills
- comfortable working with computers
- good geographical knowledge.

#### Education and Training

You can work as a tourist information officer without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications.

You can also become a tourist information officer through a traineeship in Tourism or Tourism (Visitor Information Services). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

A highly desirable skill amongst tourist information officers is the ability to speak a second language. Most people are expected to have a strong retail background or qualifications in hospitality and tourism.

Tourist information officers have to be familiar with all the tour operators and the various attractions and services in their region. As part of ongoing training, they take part in industry familiarisations, going to hotels or motels to personally rate the accommodation.

#### Employment Opportunities

Tourist information officers are employed in a wide range of agencies in the tourism and hospitality industry, and in private and government organisations involved in tourist promotion, planning and development. Tourism officers can be involved in providing information on and promoting travel to the local area, the state or international destinations.

Despite tourism being important in the Australian economy, some small tourist information centres are staffed by volunteers and do not hire professional staff. Some larger centres are broadening their scope and employing staff with higher levels of training.

#### For Further Information

- Service Skills Australia ☎ [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Tourism Training Australia ☎ (02) 9286 3944  
✉ [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
☎ [www.tourismtraining.com.au](http://www.tourismtraining.com.au)
- Tourism Victoria ☎ (03) 9653 9777 ☎ [www.tourism.vic.gov.au](http://www.tourism.vic.gov.au)

#### Related Jobs

Tour Guide (p 409); Travel Consultant (p 418).

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### Toxicologist ✱

Toxicologists study the harmful effects of chemicals on living organisms by examining the symptoms, mechanisms, treatments and detection of biological poisoning, especially the poisoning of people.

Toxicologists may perform the following tasks:

- study the amount of exposure to a substance (e.g. from pollution caused by environmental contaminants such as industrial waste products or emergency events such as a gas leak) and the potential effect it may have on public health, plants, animals and/or the ecosystem
- study the genetic, chemical, physical and structural composition of cells, tissues and organisms
- devise and carry out experiments to determine how drug concentrations in the body change over time and test newly discovered or manufactured substances for their safety, activity and possible use as drugs
- analyse biological and environmental samples to identify the chemical composition of narcotics, drugs, contaminants and other substances in blood, urine or other biological and environmental samples to determine the levels of concentration
- evaluate evidence from cases where tampering and contamination has occurred
- write scientific reports on research, investigations and more general information for scientific, managerial, political and general audiences
- document results, preserve evidence and maintain chain of custody (the document or paper trail showing the process of evidence seizure through to the presentation of the evidence in court) in criminal investigations
- provide advice to managers, politicians, primary producers, health care workers and the general public.

#### Specialisations

**Clinical Toxicologist** - has medical qualifications to study the harmful effects of chemicals, drugs, pesticides and other substances on humans through clinical diagnosis of symptoms and detection and diagnosis of biological poisoning. Clinical toxicologists also treat and manage intoxicated patients.



**Environmental Toxicologist** - studies the harmful effects of chemical, physical and biological agents on living organisms, including fish, plants, animals and humans.

**Forensic Toxicologist** - specialises in the study of alcohol, legal and illicit drugs and poisons, including their chemical composition, preparations and identifications. Forensic toxicologists also study the absorption, distribution and elimination characteristics of chemicals and substances in the body, as well as the way in which the body responds to them and the factors which determine drug safety and effectiveness.

**Regulatory Toxicologist** - has the primary role of ensuring public health and safety from the use of chemicals, drugs and pesticides by identifying potential health risks posed by exposure to such substances. Regulatory toxicologists provide advice to governments, health professionals, politicians and the public on potential risks associated with chemical exposure so that appropriate risk management strategies may be implemented to protect the health of workers and the public.

#### Personal Requirements

- enjoy and have aptitude for science and research
- able to think logically and analytically
- able to carry out detailed and accurate work
- good communication skills
- able to think creatively and solve problems
- able to work as part of a team.

#### Education and Training

To become a toxicologist you usually have to study science at university with a major in toxicology. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics and chemistry are normally required. Contact the university for more information as requirements may change. Courses are also offered by distance education. Contact the universities you are interested in for more information.

#### Degree Courses

##### *RMIT University - Bundoora Campus:*

Bachelor of Biomedical Science (Pharmaceutical Sciences),  
majoring in toxicology, 3 years full time or 7 years part time

##### *RMIT University - City Campus:*

Bachelor of Science (Food Technology and Nutrition), majoring in  
toxicology, 3 years full time or equivalent

#### Employment Opportunities

Toxicologists are employed across several industries including the pharmaceutical, food and chemical industries, scientific research, government regulatory agencies and other research organisations and health services. They are also employed in hospitals and educational institutions.

#### For Further Information

- Australian Society for Clinical and Experimental Pharmacologists and Toxicologists ☎ (03) 9416 3833 ✉ [ascept@clems.com.au](mailto:ascept@clems.com.au)  
🌐 [www.ascept.org](http://www.ascept.org)
- The Association of Professional Engineers, Scientists and Managers, Australia ☎ (03) 9695 8800  
✉ [info@apesma.asn.au](mailto:info@apesma.asn.au) 🌐 [www.apesma.asn.au](http://www.apesma.asn.au)

#### Related Jobs

Biochemist (p 88); Biomedical Engineer (p 89); Chemist (p 111); Environmental Scientist (p 169); Forensic Scientist (p 192); Marine Biologist (p 254); Medical Practitioner (p 268); Medical Scientist (p 270); Pharmacist (p 315); Tissue Culture Technician (p 408); Veterinarian (p 428); Zoologist (p 443).

## Trade Measurement Officer

Also known as Weights and Measures Inspector.

Trade measurement officers monitor the market place with respect to goods sold by measure, to ensure the accuracy of claimed or advertised measurements and fair trading. Typical transactions using measurement involve fuel purchased for motor vehicles and goods purchased by weight in supermarkets.

Trade measurement officers may perform the following tasks:

- test weighing and measuring equipment for accuracy
- calibrate weights and measures to national measurement standards
- conduct accuracy checks on goods sold by weight or measure (e.g. pre-packed food)
- apply the trade measurement law, investigate any fraud and prosecute if necessary
- prepare briefs of evidence, and instruct legal staff in the conduct of enforcement actions in the courts
- provide advice and deliver education and promotion programs to traders and licensed repairers.

The work is done at service stations, oil depots, airports, stores, supermarkets, factories and warehouses.

#### Personal Requirements

- enjoy technical work
- good communication skills
- able to perform calculations accurately
- Australian citizenship or permanent residency.

#### Education and Training

You can become a trade measurement officer without formal qualifications. You will need to apply to the National Measurement Institute who will assess your suitability. If your application is successful, you can join the National Measurement Institute where you will undertake both formal and informal training on the job. On successful completion of this training you will be awarded a Diploma in Government (Trade Measurement).

#### Additional Information

Trade measurement officers are frequently required to hold a drivers licence. You may need to pass a medical examination as part of the application process.

#### Employment Opportunities

Trade measurement officers are employed by the National Measurement Institute, a Division of the Commonwealth Department of Innovation, Industry, Science and Research.

Vacant positions are advertised in the Commonwealth Gazette as required. Contact the National Measurement Institute for further details.

#### For Further Information

- National Measurement Institute ☎ (02) 8467 3796  
✉ [training@measurement.gov.au](mailto:training@measurement.gov.au)  
🌐 [www.measurement.gov.au](http://www.measurement.gov.au)

#### Related Jobs

Local Government Inspector (p 251).

## Trade Union Official

Also known as Union Organiser.

Trade union officials work to maintain and improve the wages, conditions and employment opportunities of workers in particular occupations or industries.



In some unions, trade union officials are elected from the membership, but in others they are appointed to paid positions.

Trade union officials may perform the following tasks:

- represent members in negotiations with management over workplace issues
- visit places of work where members of the union are employed, to check on working conditions and to identify other industrial relations issues
- handle complaints and disputes on the job
- check employees' time and wage records (kept by employers) to make sure that employees are being paid the correct wages
- make sure that safety rules and regulations are observed in the workplace and advise employers of possible breaches
- recruit new members and make sure that current members are up to date with payment of their union fees and are informed about union activities (e.g. through a newsletter)
- draft applications for award variations and, through research and inspections, collect evidence and prepare submissions in support of claims
- represent the union at conferences and in negotiations (may include acting as the union's representative or advocate before industrial courts or tribunals)
- assist in managing the finances of the union.

Officials with training in fields such as law, journalism, economics, accountancy and welfare may be appointed to specialist positions, such as legal officer or media officer. Research officers generally have tertiary qualifications which may be in a broad range of disciplines from arts to science.

#### Personal Requirements

- interested in trade union activities
- good negotiation and communication skills
- able to deal with employers and workers at all levels
- able to stay calm in difficult situations and handle controversial and emotional issues objectively and analytically.

#### Education and Training

There are no specific educational requirements to become a trade union official. Unions provide on-the-job and formal training. People often enter this occupation after experience in industry. However, entry may be improved if you have a diploma or degree in labour studies, industrial relations, human resource management or occupational health and safety. Relevant courses are offered at most TAFE institutes and universities in Victoria. Refer to institution handbooks for further details.

To get into these courses you usually need to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for further information as requirements may change.

#### Employment Opportunities

Although there is no formal career structure within trade unions, opportunities exist to move from base-level trade union official positions up to president. Skills and experience gained are also transferable to other areas of work, such as industrial relations or politics.

The demand for trade union officials is affected by membership numbers, union involvement in enterprise bargaining agreements and amalgamations. The rules of each union determine the number of paid positions available.

#### For Further Information

- Australian Council of Trade Unions ☎ 1300 362 223  
✉ [help@actu.org.au](mailto:help@actu.org.au) 🌐 [www.actu.org.au](http://www.actu.org.au)
- Victorian Trades Hall Council ☎ (03) 9659 3511  
✉ [hatkinson@vthc.org.au](mailto:hatkinson@vthc.org.au) 🌐 [www.vthc.org.au](http://www.vthc.org.au)

#### Related Jobs

Foreign Affairs and Trade Officer (p 191); Human Resources Officer (p 219); Industrial Relations Officer (p 226); Occupational Health and Safety Officer (p 298); Political Scientist (p 328).

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## Train and Network Controller

Train and network controllers move trains across their area of control using computerised and mechanical control systems, and liaise with other employees across the network to ensure trains run to timetable and safety standards are maintained.

Train and network controllers may perform the following tasks:

- operate mechanical or computerised signal equipment to control the running of trains
- liaise with all areas of the rail system to ensure smooth running of trains
- use computerised control systems to coordinate the safe crossing of trains and ensure they are on the right path
- control when the trains stop and start, ensuring they arrive on time at their destinations
- initiate and manage emergency procedures in the event of an incident, and coordinate the train network so that each train within the area remains safe.

Train and network controllers are required to work shifts, including weekends and public holidays.

#### Specialisations

**Railway Signaller** - operates signal equipment to control the running of trains, records the details of trains that pass and notifies the control centre in cases of delay or accident. Advances in signaling technology have enabled the centralisation of this function in some organisations, with both signaling and train control being managed by Network Controllers.

**Network Controller (Trains)** - works from a control centre using computerised network control systems to coordinate trains, ensuring they are on the correct path and running on time. Network controllers are also responsible for managing all aspects of emergency situations.

#### Personal Requirements

- high-level communication skills
- good problem-solving skills
- able to act appropriately in emergency situations
- able to work in a team environment
- good memory for learning safety procedures and regulations
- able to concentrate for long periods on detailed information
- alert and safety conscious.

#### Education and Training

You can become a train and network controller without formal qualifications. Once you are employed you will receive intensive formal training, both on and off the job. On completion of this training you may receive a nationally recognised qualification.

#### Additional Information

Applicants will go through a range of recruitment processes, including personality, aptitude and ability tests, an interview, and a medical check. Age limits may apply.



Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Competition for train and network controller positions is very strong. Entrants often start at a lower level such as a railway station assistant and then work their way up to these positions.

Train and network controllers are employed by railway owners and passenger and freight operators. Rail services are provided throughout Victoria by passenger services such as Metro Trains Melbourne and V/Line, by the national railway asset owner, Australian Rail Track Corporation (ARTC), or by national freight operators such as Pacific National.

With experience and further training, promotion to supervisory or other positions is possible.

#### For Further Information

- Pacific National Pty Ltd ☎ (02) 8484 8000  
✉ communication@pacificnational.com.au  
🌐 www.pacificnational.com.au
- Rail Careers 🌐 www.railcareers.net.au
- Australian Rail, Tram and Bus Industry Union (VIC)  
☎ (03) 9600v3030 ✉ rtbu@rtbuvic.com.au  
🌐 www.rtbuvic.com.au
- Metro Trains Melbourne ✉ jobs@metrotrains.com.au  
🌐 www.metrotrains.com.au
- V/Line Passenger Pty Ltd 🌐 www.vline.com.au

#### Related Jobs

Railway Infrastructure Worker (p 345); Train Crew Employee (p 413); Transport Services Officer (p 418).

## Train Crew Employee

Train crew employees either drive passenger or freight trains, or manage customer service on suburban and long-distance passenger trains.

Train crew employees may perform the following tasks:

- operate locomotives to convey passengers or goods
- inspect trains, carry out any adjustments and report major problems
- ensure the safety of the train and security of freight
- ensure train timetables are adhered to
- observe and obey rail signaling instructions, speed limits and other railway rules, procedures and instructions from the network control centre
- ensure that passengers get on and off the train safely, and take action if there is an accident or if a passenger becomes ill
- provide on-board customer service to passengers.

All train crew employees do shift work, including weekends and public holidays. Train crew on long-distance journeys may be required to stay away overnight.

#### Specialisations

**Train Driver** - operates train locomotives to convey passengers or goods. They operate the train's controls, observing signals and speed limits, and stop at stations to pick up and set down passengers and freight. Train drivers may also inspect trains, reporting defects and carrying out adjustments, shunt rolling stock in marshalling yards and sidings along the line, and refuel diesel trains, checking oil, water and sand and topping up as necessary.

**Train Guard** - patrols carriages to ensure the safety of the train and its passengers. They may also check tickets and help passengers who require assistance to board and disembark trains safely. They are sometimes responsible for opening and closing the train doors for passengers. Train guards also communicate with the train driver about signal information from the network control centre.

**Passenger Service Attendant (Trains)** - provides customer service to guests on long-distance passenger trains. They assist passengers with their enquiries, and prepare and serve meals and beverages.

#### Personal Requirements

- safety conscious
- good communication skills
- able to concentrate for long periods
- able to solve mechanical and/or technical problems
- good interpersonal and customer service skills
- good problem-solving and decision-making skills
- good memory for learning safety procedures and regulations.

#### Education and Training

You can become a train crew employee without formal qualifications. Once you are employed you will receive formal training on the job, which includes both the theory and practice of train crewing. On completion of this training you may receive a nationally recognised qualification.

#### Additional Information

Applicants will go through a range of recruitment processes, including personality, aptitude and ability tests, an interview, and a medical check. Age limits may apply.

You may need a current C class drivers licence, a national criminal history record check and a transport driving history report to be eligible for some train crew roles.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Train crew employees are employed by passenger and freight rail operators. Rail services are provided throughout Victoria by passenger operators such as Metro Trains Melbourne and V/Line, or by national freight operators such as Pacific National.

Train guards and passenger service attendants are employed in some states and territories only. Check with your local rail authority for opportunities in these roles.

With experience and further training, promotion to supervisory or other positions is possible.

#### For Further Information

- Pacific National Pty Ltd ☎ (02) 8484 8000  
✉ communication@pacificnational.com.au  
🌐 www.pacificnational.com.au
- Rail Careers 🌐 www.railcareers.net.au
- Australian Rail, Tram and Bus Industry Union (VIC)  
☎ (03) 9600 3030 ✉ rtbu@rtbuvic.com.au  
🌐 www.rtbuvic.com.au
- Metro Trains Melbourne ✉ jobs@metrotrains.com.au  
🌐 www.metrotrains.com.au
- V/Line Passenger Pty Ltd 🌐 www.vline.com.au

#### Related Jobs

Railway Infrastructure Worker (p 345); Train and Network Controller (p 412); Transport Services Officer (p 418).



## Training Officer

Also known as Training and Development Officer.

Training officers plan, develop, implement, and evaluate training and development programs in organisations.

Training officers may perform the following tasks:

- coordinate a staff training program based on organisational and employee needs
- use questionnaires and surveys in consultation with managers and staff to analyse training needs as they relate to the goals of the organisation and work area
- compile training manuals
- develop training resources, which may involve preparing notes and visual displays from researched information or their own knowledge
- arrange or conduct training courses, which may involve demonstrating equipment, operating video recorders and cameras, leading group discussions or role-playing activities, or employing experts to run sessions
- evaluate the effectiveness of training programs, using surveys, questionnaires, interviews and observation, in order to plan future courses or to amend existing ones
- obtain information on work-related external courses, prepare reports on their suitability, and make recommendations on staff attendance at training courses
- prepare, administer and conduct training assessments
- provide career development sessions for existing staff and conduct induction sessions for new employees
- assist in developing training interventions to meet the needs of internal and external stakeholders
- support learners during training interventions.

Training officers instruct staff and management in many areas including occupational health and safety, operating plant machinery and equipment, driving, industrial relations, preparing for retirement, general clerical duties and supervisory skills.

### Personal Requirements

- initiative, tact and maturity
- aptitude for research
- organisational skills
- good communication and presentation skills.

### Education and Training

To become a training officer you usually have to study a degree in adult education, training or human resources at university. To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the universities you are interested in for more information as requirements may change.

Most universities in Victoria offer degrees in business or commerce with a major in human resource management. Contact your preferred institution for further details.

### Additional Information

The Australian Institute of Training and Development (AITD) offers membership to those involved in the training industry. There are different levels of membership, for students through to those who have a high level of qualification and experience.

Academic training alone is not normally sufficient to find work in this field. Training officers often need to have extensive work experience

and job knowledge, gained as an assistant, through work in specialist technical areas, or as a leading hand or supervisor.

Many Registered Training Organisations, including TAFE, offer a Certificate IV in Training and Assessment. This may be of assistance to people with a trade or extensive work experience who are required to train other employees in their place of work. This qualification is also generally required to plan and conduct training and assessments within a Registered Training Organisation. See the separate entry for Technical and Further Education Lecturer for full details.

### Employment Opportunities

Training officers work in federal, state, territory and local government departments and agencies; training institutions; and in many large private firms. Banks, retail stores, mining companies, manufacturing companies, health and medical organisations and other large firms have staff training departments.

There is a growing tendency for organisations to employ training consultants for short-term contracts to undertake specific projects. Because of this, training consultants often combine training with other human resource duties such as personnel work.

There is an increasing need for training officers with specialised knowledge of new technology.

As a training officer gains experience, prospects of advancement and/or promotion improve. Opportunities exist for training officers to attain management positions or to become self-employed as training consultants.

### For Further Information

- Australian Human Resources Institute (National Office)  
☎ (03) 9918 9200 ✉ [reception@ahri.com.au](mailto:reception@ahri.com.au)  
🌐 [www.ahri.com.au](http://www.ahri.com.au)
- Australian Institute of Training and Development (AITD)  
☎ 1300 138 862 (FREECALL) 🌐 [www.aitd.com.au](http://www.aitd.com.au)

### Related Jobs

Health Promotion Officer (p 210); Human Resources Officer (p 219); Industrial Relations Officer (p 226); Information Technology Educator (p 228); Multimedia Developer (p 281); Occupational Health and Safety Officer (p 298); Teacher - Secondary (p 397); Teacher - Special Education (p 398); Technical and Further Education Lecturer (p 399); University Lecturer (p 422).

## Transcript Typist

Also known as Court Reporter and Machine Shorthand Reporter.

Transcript typists record the spoken word in parliament, courts of law and television broadcasts using a stenotype shorthand machine, computer or sound equipment.

Transcript typists may perform the following tasks:

- operate and monitor sound equipment which records all spoken words
- list the speakers in the court proceedings and log major events
- record proceedings using a Qwerty (computer) keyboard or a stenotype machine
- use computer-aided transcription (CAT) which translates the shorthand recorded by the stenotype machine onto a computer screen
- transcribe audio recordings onto computer
- research terminology used
- edit the transcript for syntax and grammar
- read back portions of notes or replay a recording on request.



Handwritten shorthand has been replaced by the stenotype machine or sound recording. All spoken words are recorded and checked either on paper or computer.

Sound recording involves three stages: first, monitors record the proceedings using a sound recording (audio) system; then audio typists transcribe the audio file/tape onto computers; and finally transcript checkers edit the hard copy. Audio typists need a minimum typing speed of 75 words per minute.

Machine shorthand reporters need a typing speed of at least 200 words per minute.

Court recorders and Hansard (parliament) reporters work in teams and take turns in reporting. Court recorders usually work during court hours. Hansard reporters work long, irregular hours. Reporters can advance to senior positions that involve editorial and administrative responsibilities.

Stenocaptioners and captioners work shifts to cover television programming, usually at the originating television station's premises. Real-Time (CART) reporters work in different locations, for example, a courtroom, university campus, boardroom or conference.

All kinds of reporting and some forms of captioning work are conducted under considerable time constraints.

#### Specialisations

**Captioner** - reproduces the spoken word and environmental sounds as captions (also known as subtitles) for television programming, using a Qwerty keyboard. Captioners may produce captions for programming that is recorded prior to airing, or work with stenocaptioners to produce captions in real time for live programming.

**Court Recorder** - records the proceedings at various courts of law (the Family, Civil, Criminal, Arbitration and Industrial Courts) or at Royal Commissions, enquiries and public hearings. Sound is recorded and log notes of the main events are taken.

**Hansard Reporter** - records the debates and daily proceedings in the chambers of state, territory and federal parliaments, and in their committees and ministerial conferences.

**Stenocaptioner** - records the spoken word, environmental sounds (e.g. laughter) and song lyrics for television programming using a stenotype machine. The translation (in captions) is projected onto the television screen.

**Real-Time Reporter (Computer Assisted Real-Time)** - records the spoken word and environmental sounds (e.g. door slams) for the deaf and hearing impaired, usually in a meeting or university lecture environment. These words are projected onto a laptop or onto a larger screen via a data projector. Real-Time is also used in the courts, Hansard and business environments to provide instantaneous translation.

#### Personal Requirements

- good hearing and concentration
- fast and accurate machine shorthand and/or keyboard skills
- able to work under pressure
- wide vocabulary, and sound knowledge of spelling, grammar and punctuation
- broad general knowledge, particularly in current affairs and politics
- interested in parliament and courts and their procedures
- comfortable with new technology
- able to recognise and quickly identify environmental sounds.

#### Education and Training

To work as a transcript typist using a stenotype machine you usually have to complete a course in machine shorthand. Training in specific procedures is then given on the job.

You can work as a transcript typist using a Qwerty keyboard without formal qualifications, but employers generally prefer Year 12. You will also need a very fast typing speed and good command of English.

The following short course is available via distance education. Entry usually requires Year 12 with English and good keyboard skills. Contact the institution for more information as requirements may change.

#### Short Courses

*National College of Court Reporting - Distance Education:*  
Machine Shorthand

#### Employment Opportunities

Court and Hansard reporters and transcript typists often work for the state, territory and federal governments. Job opportunities depend on the number of courts in operation and the length of time that the courts and parliament are in session.

Some transcript typists work for private contracting firms or are self-employed. As well as general audio typing and stenographic work, they may find jobs reporting the proceedings at conventions, conferences and appeals proceedings. A small number of machine shorthand reporters work as television caption subtitlers.

Changes to technology and ways of recording affect the demand for court and Real-Time reporters and stenocaptioners. Reporters need to keep up to date with these changes to remain employable.

#### For Further Information

- Australasian Court Reporting Industry Association  
☎ (03) 8628 5555 ✉ neil.griffin@merrillcorp.com
- Department of Parliamentary Services ☎ (02) 6277 7111  
🌐 www.aph.gov.au

#### Related Jobs

Editor (p 155); Journalist (p 239); Secretary (p 363); Word Processing Operator (p 440).

## Translator

Translators convert written documents from one language to another while maintaining the precise meaning of the original text.

Translators may perform the following tasks:

- study original texts and transcripts of recorded spoken material to understand the subject matter and convert it into another language in a way that conveys the original meaning, spirit and feeling
- use dictionaries and other sources to determine meanings of words and phrases and to establish their closest equivalent in the target language
- translate a wide range of written material, including business letters, application forms, novels or detailed scientific articles
- make sure that phraseology and terminology in legal, technical and scientific texts is accurately translated
- supply subtitles for films and television programs in languages other than English
- revise translations done by others.

Translators may specialise in a particular language. They can also specialise in a particular field of work such as commerce, law, health, science, technology or literature.

#### Personal Requirements

- excellent command of English and able to learn, or have knowledge in, at least one other language
- understanding and acceptance of different cultures
- able to work accurately and objectively
- initiative and research skills



- able to maintain confidentiality
- broad general knowledge.

#### Education and Training

To become a translator you require fluent written language skills in English, and fluent reading comprehension of at least one other language.

You will also usually need to complete a course approved by the National Accreditation Authority for Translators and Interpreters (NAATI), or gain accreditation by passing a NAATI test. Completion of specific language courses and/or a relevant degree is desirable, although fluency in a foreign language may be obtained by living in that language's cultural environment.

Most TAFEs and universities offer language courses or language majors. These courses can help you become accredited either by developing the language skills needed for passing a NAATI test, or by meeting the entry requirements for a further course of study approved by NAATI. Contact NAATI for further information about accredited courses.

Entry to approved diploma and degree courses usually requires you to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

Costs, duration and entry requirements may vary between courses. See the online entry for Translator at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

#### Additional Information

Translators need to have a sound knowledge of a wide range of subjects in order to understand the complex issues they may encounter during translating assignments.

The NAATI levels of accreditation range from Advanced Translator and Advanced Translator (Senior), both of which requires the high levels of proficiency needed for trade negotiations and international conferences, to Paraprofessional Translator and Professional Translator. The minimum level that NAATI recommends for professional work in Australia is the Professional Translator level.

#### Employment Opportunities

Translators are employed by federal, state and territory government departments concerned with immigration, legal issues and law enforcement, social security and education. Organisations such as hospitals, banks, tourist agencies and private interpreting and translating firms may also engage translators on a contract or freelance basis. Permanent employment opportunities are limited, but are most likely found in law, finance and defence.

The languages in demand change from time to time, particularly in relation to recent immigration and refugee arrivals. Problems may arise in obtaining suitably skilled people in minority community languages, such as some African languages. Arabic and Asian languages are currently in demand for commerce. Most translators in Australia are self-employed, or work as freelancers, casuals or

contractors. The most successful translators in Australia work for international clients using modern technology to service clients, and collaborate with colleagues on projects.

#### For Further Information

- Australian Institute of Interpreters and Translators Inc (National Office) ☎ 1800 284 181 (FREECALL) ✉ [admin@ausit.org](mailto:admin@ausit.org)  
🌐 [www.ausit.org](http://www.ausit.org)
- National Accreditation Authority for Translators and Interpreters (National Office) ☎ 1300 557 470 ✉ [info@naati.com.au](mailto:info@naati.com.au)  
🌐 [www.naati.com.au](http://www.naati.com.au)

#### Related Jobs

Interpreter (p 235); Public Servant - Australian Public Service (p 340); Teacher - English as a Second Language (p 393).

## Transport Administrator

Transport administrators plan, organise and control the operational activities of road, rail, air and water transport.

Transport administrators may perform the following tasks:

- coordinate transport and related staff
- devise or approve methods and procedures for operating freight and passenger services, time schedules and routes
- review passenger and freight rate structures (where these are not controlled by government agencies and transport associations)
- help develop transport operating policy.

The transport administrator's role is becoming increasingly specialised and sophisticated. Transport administrators need a thorough understanding of the transport industry and knowledge of how the four principal types of transport interact. These are:

**Road Transport** which comprises passenger (bus, coach, taxi) transport provided by government agencies and private companies; goods transport provided by general carriers such as courier, taxi, truck and heavy haulage services; and the operations of large commercial enterprises that have delivery vehicles such as bakeries and food processors.

**Rail Transport** which comprises passenger transport in the metropolitan area, as well as passenger and goods transport provided in the country and interstate.

**Air Transport** which comprises passenger and goods transport provided by private, domestic and overseas airlines.

**Sea Transport** which comprises passenger and goods transport provided by local and overseas shipping companies.

#### Personal Requirements

- good managerial and organisational skills
- able to work under pressure
- good communication skills.

#### Education and Training

To become a transport administrator you usually have to complete a traineeship in Transport and Logistics (Logistics). Entry requirements may vary, but employers generally require Year 10.



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Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

You can also become a transport administrator through a certificate or diploma in logistics. Entry to this occupation may be improved if you have a business degree with a major in transport and logistics, operations management or a related field. Entry to these courses usually requires you to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

#### Certificate Courses

*University of Ballarat (TAFE Division) - SMB Ballarat Campus:*

Certificate IV in Transport and Logistics - Logistics

*Victoria University (TAFE Division) - Footscray Nicholson Campus:*

Certificate IV in Logistics and Supply Chain Principles

#### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Logistics

#### Degree Courses

*La Trobe University - Albury-Wodonga Campus:*

Bachelor of Business, majoring in logistics, 3 years full time or equivalent

*RMIT University - City Campus:*

Bachelor of Business (Logistics and Supply Chain Management), 3 years full time or equivalent

Bachelor of Business (Management), majoring in logistics, 3 years full time or equivalent

*Victoria University - City Flinders Campus:*

Bachelor of Business (Global Logistics and Transport), 3 years full time or equivalent

#### Employment Opportunities

Transport administrators are employed by major airlines, shipping companies, import and export firms, public transport authorities, large road transport firms, freight forwarders, courier services, and bus and coach operators. They may also work in consulting firms concerned with transport logistics or warehousing studies.

#### For Further Information

- Chartered Institute of Logistics and Transport ☎ 1300 681 134  
✉ [admin@cilta.com.au](mailto:admin@cilta.com.au) 🌐 [www.cilta.com.au](http://www.cilta.com.au)
- Logistics Association of Australia ☎ (02) 9635 3422  
✉ [admin@laa.asn.au](mailto:admin@laa.asn.au) 🌐 [www.laa.asn.au](http://www.laa.asn.au)
- Supply Chain and Logistics Association of Australia  
☎ 1300 364 160 🌐 [www.sclaa.com.au](http://www.sclaa.com.au)
- Transport and Logistics Industry Skills Council  
🌐 [www.tlisc.com.au](http://www.tlisc.com.au)

#### Related Jobs

Customs Broker (p 139); Logistics Clerk (p 251); Office Administrator (p 300); Transport Clerk (p 417).

## Transport Clerk

Transport clerks check the contents and related documents of freight goods. They also tally and record the consignment and/or destination

details of articles, containers and passengers, and make freight or transport bookings, as well as related arrangements.

Transport clerks may perform the following tasks:

- check the number of articles or containers in consignments of goods received or despatched
- make sure articles are in good condition and correspond to invoices, manifests or other records
- arrange internal distribution of goods received
- prepare and attach documentation to articles to be despatched
- make sure clearance procedures (e.g. payment of any customs entry fees or duties) are carried out
- despatch goods and arrange delivery promptly on arrival
- spend time in warehouses, packing and unpacking goods
- drive between wharves, container terminals, airports and government departments
- weigh and calculate cubic dimensions of items
- contact senders to fix shortages and arrange replacement of damaged goods
- maintain records of receipts and despatches
- undertake clerical work such as filing, accounting, updating customs records, preparing correspondence, and inputting and retrieving information from computers.

Transport clerks who work for large organisations may work alongside other clerks in city offices. However, import/export firms often employ only one transport clerk who works in a small office.

#### Specialisations

**Aircraft Load Controller** - plans the permissible weight combinations for fuel, cargo and passengers, as well as the weight distribution in the aircraft, and issues instructions to the loading staff.

**Bond Clerk** - calculates the duties, excise and other payments that are due and arranges for the clearance of the goods.

**Customs Clerk** - compiles customs documents for the import and export of goods, ensuring that customs laws and regulations are complied with. They work for customs agents, international freight forwarders or import/export firms.

**Freight Traffic Controller** - arranges the allocation of cargo space on railway or road haulage systems.

**Import/Export Clerk** - compiles all documents and records details on imported/exported cargo before it is allowed to be moved from the port of entry/exit. They also authorise and organise the collection of cargo, the calculation and clearance of any charges, and arrange any booking of cargo space for outward-bound freight.

**Shipping Officer/Clerk** - obtains details from shipping companies about where and when goods will arrive and organises storage time at a wharf or container, as the time cargo can stay at a terminal is limited and costly.

**Truck Despatcher** - arranges the assignment of freight to trucks as well as truck routing, slot times at wharves and timetabling.

#### Personal Requirements

- good communication skills
- well organised
- able to work neatly and accurately
- able to learn to use electronic trading systems.

#### Education and Training

You can work as a transport clerk without formal qualifications. You will probably get some informal training on the job.

You can also become a transport clerk through a traineeship in Transport and Logistics (Logistics). Entry requirements may vary, but



employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Transport clerks are employed by firms involved in the movement of goods. These include shipping agents, import/export companies, freight forwarding and storage companies, and road haulage firms. Wholesalers and large manufacturing firms may also employ transport clerks.

Demand is influenced by the state of the economy, the level of imports/exports and the use of computer technology to keep records of goods movement.

Most recruitment for senior positions occurs in-house or from within the industry group. This is because specialist knowledge and experience are normally required. Knowledge of international trade is an advantage for employment and promotion.

#### For Further Information

- Customs Brokers and Forwarders Council of Australia Inc (National Office) ☎ (07) 3256 0146 ✉ [training@cbfca.com.au](mailto:training@cbfca.com.au)  
🌐 [www.cbfca.com.au](http://www.cbfca.com.au)
- Transport and Logistics Industry Skills Council  
🌐 [www.tlisc.com.au](http://www.tlisc.com.au)

#### Related Jobs

Accounts Clerk (p 50); Administrative Assistant (p 54); Customs Broker (p 139); Delivery Driver (p 142); Inventory and Supply Officer (p 235); Logistics Clerk (p 251); Office Administrator (p 300); Storeperson (p 386); Transport Administrator (p 416); Waterside Worker (p 434).

### Transport Services Officer

Also known as Conductor (Transport), Transport Customer Services and Security Officer, Transport Customer Service Assistant, Passenger Service Assistant, Transit Service Officer, Transit Guard and Transit Officer.

Transport services officers assist the public in their use of passenger transport services, maintain orderly conduct of passengers, patrol public transport to ensure safety and security on transport networks, and inspect tickets.

Transport services officers may perform the following tasks:

- travel on trains, buses, trams and ferries, and attend stations to make sure that customer service and safety standards are met and vandalism is prevented
- participate in mobile patrols and attend to emergency operational and security requirements
- monitor passenger behaviour and take appropriate action
- provide travel information to passengers
- deal with, or refer on, customer complaints
- provide physical assistance to passengers with disabilities
- conduct ticket inspections to ensure payment of fares and issue infringement notices as necessary
- carry out any other duties as required (e.g. submission of damage reports).

Shiftwork, weekend work, additional shifts during peak periods and travel are usual in this occupation.

#### Personal Requirements

- good communication skills
- initiative
- able to stay calm in difficult situations
- mature and able to deal politely with the public
- physical capacity to cope with patrolling and intervening in potentially violent situations.

#### Education and Training

You can work as a transport services officer without formal qualifications, but employers generally require Year 10. You will probably get some informal training on the job.

If you wish to work in the rail industry, see the entry for Rail Transport Employee for specific details of entry requirements.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Applicants may be required to undergo a criminal history check.

#### Employment Opportunities

Transport services officers may be employed directly by passenger transport services, or they may be employed by private contractors. With experience and sometimes further training, it is possible to advance to patrol supervision positions.

#### For Further Information

- Australian Rail, Tram and Bus Industry Union (VIC)  
☎ (03) 9600 3030 ✉ [rtbu@rtbuvic.com.au](mailto:rtbu@rtbuvic.com.au)  
🌐 [www.rtbuvic.com.au](http://www.rtbuvic.com.au)
- Rail Careers 🌐 [www.railcareers.net.au](http://www.railcareers.net.au)
- Metro Trains Melbourne ✉ [jobs@metrotrains.com.au](mailto:jobs@metrotrains.com.au)  
🌐 [www.metrotrains.com.au](http://www.metrotrains.com.au)
- V/Line Passenger Pty Ltd 🌐 [www.vline.com.au](http://www.vline.com.au)

#### Related Jobs

Airline Passenger Officer (p 64); Flight Attendant (p 186); Police Officer - State (p 327); Porter - Hotel/Motel (p 328); Railway Infrastructure Worker (p 345); Security Officer (p 364); Train and Network Controller (p 412); Train Crew Employee (p 413).

### Travel Consultant

Also known as Travel Agent.

Travel consultants provide information, advice and booking services for people wishing to travel.

Travel consultants may perform the following tasks:

- provide literature and information to clients concerning local, interstate and international tours, travel routes, accommodation, local customs, fares and travel regulations
- discuss client requirements and advise on suitable options
- plan, prepare and cost itineraries (travel plans) for clients
- make travel, accommodation and related bookings
- confirm bookings and notify clients of luggage limits, insurance, medical, passport, visa and currency requirements
- issue tickets for travel, accommodation vouchers and all relevant documentation
- collect payments and maintain records of transactions
- assist with changes to travel arrangements and bookings where required.



Travel consultants in large organisations may specialise in particular areas such as business, international or domestic travel. Ongoing learning is important to those working in the industry. Most travel consultants work on a commission basis and work long hours including weekends, often working 10-hour days. Travel consultants may also work in call-centres.

#### Personal Requirements

- good communication skills
- strong customer focus
- good organisational skills
- strong computer and written skills
- able to work as part of a team
- high level of personal presentation
- able to work under pressure
- enjoy working with people
- strong sales focus.

#### Education and Training

You can work as a travel consultant without formal qualifications. You will probably get some informal training on the job. Entry to this occupation may be improved if you have qualifications, skills or experience in office work, retail or tourism.

You can also become a travel consultant through a traineeship in Tourism (Retail Travel Sales). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Knowledge of a second language is highly desirable, and is becoming a prerequisite for travel consultant work. Most people in the travel industry have also travelled extensively.

#### Employment Opportunities

Travel consultants are employed by travel agencies, government tourist bureaus, tourism wholesalers and airline and shipping companies. Some travel agents set up their own businesses. Job opportunities depend on the level of tourism activity.

#### For Further Information

- The Australian Federation of Travel Agents ☎ (02) 2987 9900  
✉ [afta@afta.com.au](mailto:afta@afta.com.au) 🌐 [www.afta.com.au](http://www.afta.com.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Tourism Training Australia ☎ (02) 9286 3944  
✉ [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
🌐 [www.tourismtraining.com.au](http://www.tourismtraining.com.au)
- Travel Industry Careers Association  
🌐 [www.travelindustry careers.org](http://www.travelindustry careers.org)

#### Related Jobs

Ticket Seller (p 405); Tour Guide (p 409); Tourist Information Officer (p 409).

## Trichologist

Trichologists diagnose and treat human hair and scalp problems and care for the general health of human hair.

Trichologists may perform the following tasks:

- discuss the scalp problem with the client
- examine the scalp and identify the problem

- work out the cause of the problem and decide on appropriate therapy
- treat scalp problems such as dandruff, itchiness of the scalp, hair loss, baldness and excessive oiliness
- carry out a microscopic examination of the hair
- apply ointment or lotion to the scalp, massage, or use electrotherapy machines and/or ultra-violet lamps
- prescribe nutritional supplements
- advise on the correct use of hair colouring, permanent waving and straightening products
- treat damage sustained by the hair or scalp, for example as a result of the misuse of hair colouring
- where necessary, refer client to a medical or paramedical practitioner.

#### Personal Requirements

- enjoy science
- enjoy contact with the public
- patient and tactful.

#### Education and Training

To become a trichologist you usually have to complete a Certificate IV in Trichology. Some students undertake trichology studies after completing an apprenticeship or Certificate III in Hairdressing (see separate entry for Hairdresser).

Entry to the course below usually requires Year 12. Contact the institution for full details as requirements may change.

There are no suitable courses available in Victoria. The following course is offered interstate.

#### Certificate Courses

TAFE SA - Distance Education:

Certificate IV in Trichology

#### Additional Information

The International Association of Trichologists also offers a course in Trichology, which is delivered via distance education. Visit their website for more information.

#### Employment Opportunities

Trichologists usually work in their own clinics or share rooms with medical doctors or paramedical specialists.

#### For Further Information

- International Association of Trichologists ☎ (02) 9267 1384  
✉ [dsalinger@trichology.edu.au](mailto:dsalinger@trichology.edu.au) 🌐 [www.trichology.edu.au](http://www.trichology.edu.au)
- Service Skills Australia 🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)

#### Related Jobs

Hairdresser (p 208); Natural Therapist (p 288).

## Truck Driver

Truck drivers use heavy vehicles to transport goods and materials from one location to another.

Truck drivers may perform the following tasks:

- drive defensively and handle hazardous road conditions
- load goods onto the truck either by hand, or by using a forklift or other lifting equipment
- make sure loads are correctly placed and secured with ropes and chains to avoid damage to the truck or the goods
- couple and uncouple trailers
- perform pre and mid-trip vehicle and security inspections
- carry out vehicle maintenance, such as checking brakes, oil, tyres and electrical systems, and changing tyres



- drive vehicles to their destination and unload
- carry out administrative duties, such as checking items against the inventory, recording damage, collecting payments and issuing receipts
- maintain a logbook with details of trips, including rest breaks on long trips.

Truck drivers may drive company-owned vehicles or be owner-drivers. Owner-drivers must obtain their own delivery work. Truck drivers carry a wide variety of goods, including flammable substances, raw materials, building materials, manufactured goods, livestock and refrigerated products. Being a truck driver may mean early starts, long shifts, days away from family and friends, and travelling long distances to country, interstate or remote areas. Modern technology has improved the driver's comfort with some trucks equipped with bunks, televisions, refrigerators and ergonomically designed seats.

#### Specialisations

**Bulk Liquid/Pressurised Gas Driver** - carries liquids/pressurised gases in specially designed trailers (tankers), usually for chemical companies or mining organisations. Drivers need to be aware of safety issues regarding loading, unloading, handling, separation of dangerous goods and emergency response. Drivers must also follow the Australian Institute of Petroleum's code of practice.

**Car Carrier Driver** - transports vehicles between the ports and holding depots or car dealerships in the metropolitan area.

**Cash in Transit Operator** - drives armoured vehicles carrying cash and other valuables. They provide surveillance, manually handle cash, operate Automated Teller Machine (ATM) combinations and service ATMs. They operate vehicle security and emergency communication devices and handle firearms and other personal protection devices. Cash in transit operators usually require a security guard licence, a firearms licence and a first aid certificate.

**Concrete Agitator Operator** - transports concrete between cement plants and building sites, using specially designed vehicles which mix the concrete to prevent it from setting.

**Dangerous Goods/Explosives Driver** - carries dangerous goods and/or explosives, usually for chemical companies or mining organisations. Drivers need to be aware of safety issues regarding loading, unloading, handling, separation of dangerous goods and emergency response.

**Heavy Haulage Driver** - transports oversized loads such as transportable houses or machinery using specially designed trailers. Some oversized loads are required to be accompanied by a pilot vehicle operator.

**Heavy Truck Driver** - drives heavy trucks, requiring a special licence, to transport bulky goods or materials. They may specialise as livestock transporters, log haulers, multi-combination drivers and tanker drivers.

**Livestock Transport Driver** - transports livestock, usually sheep or cattle, between farms and abattoirs or ports for export. Their work often involves long hours and extended periods of physical activity outdoors while loading and unloading stock. They may be required to drive in remote rural areas and on unsealed roads.

**Logging Truck Driver** - carries unprocessed timber between plantations and timber mills. Trucks/trailers are usually fitted with a log loading device, which requires a licence to operate.

**Pilot Vehicle Operator** - accompanies trucks carrying oversized loads above the length or width regulated by the transport department. Pilots warn other road users that an oversized load is ahead or oncoming and, when required, clear the way for the oversized load, or

prevent other road users from overtaking or interfering with the cargo. Pilots in some states and territories may also have the power to direct traffic.

**Refrigerated Goods Driver** - transports refrigerated goods in specially designed vehicles or trailers which are heavily insulated or fitted with refrigeration equipment. Drivers will be required to service the refrigeration equipment and check the temperature of the refrigerated areas at regular intervals. Drivers must also adhere to health and food hygiene regulations.

**Tipper Truck Operator** - transports bulk solid materials to and from building sites and/or mine sites. Tipper truck operators are usually required to work off-road.

**Tow Truck Driver** - removes broken down or crashed vehicles from the roadway. Tow truck drivers may be called out at all hours of the night and in bad weather. Tow truck drivers require a police clearance.

#### Personal Requirements

- enjoy practical work
- mechanical aptitude
- able to drive safely
- physically fit
- meet any age limits which may apply.

#### Education and Training

You can become a truck driver without formal qualifications. You will probably get some informal training on the job, but you will need to obtain one or more heavy vehicle licences before working as a truck driver. Applicants will need to undertake a practical and written test.

You can also become a truck driver through a traineeship in Transport and Logistics (Road Transport). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

You may be required to hold special licences for the type of cargo you plan to transport, especially if you carry dangerous substances. Contact WorkSafe Victoria for more information.

#### Employment Opportunities

Truck drivers may be employed by commercial firms, mining, manufacturing and transport companies, and government authorities, or they may be self-employed. Demand for truck drivers depends upon the economy and also, to some extent, on competition from other carriers such as rail and air freighters.

Experienced tow truck drivers may progress to tow truck supervisor and operations manager positions in larger tow truck companies.

#### For Further Information

- Australian Trucking Association ☎ [www.atatruck.net.au](http://www.atatruck.net.au)
- Minerals Council of Australia ☎ (02) 6233 0600  
✉ [education@minerals.org.au](mailto:education@minerals.org.au) ☎ [www.miningcareers.com](http://www.miningcareers.com)
- Transport and Logistics Industry Skills Council  
☎ [www.tlisc.com.au](http://www.tlisc.com.au)

#### Related Jobs

Bus Driver (p 97); Car Driver (p 100); Delivery Driver (p 142); Driving Instructor (p 153); Forklift Operator (p 195); Furniture Removalist (p 197); Garbage Collector (p 199); Recycler (p 349); Truck Offsider (p 421).





## TRANSPORT TRAINING

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- Bus
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### Truck Offsider

Also known as Freight Handler.

Truck offsideers assist truck drivers to load and unload goods on trucks.

Truck offsideers may perform the following tasks:

- carry heavy items up and down stairs
- make sure furniture is protected from scratches, and crockery is packed so that it will not break during a move
- assist with navigation and truck maintenance on long-distance trips
- direct drivers when reversing into tight spots.

Truck offsideers may work in a range of industries, including furniture removals and retail.

In some cases, where carriers travel long distances and interstate, offsideers could spend days away from home. They may also share driving duties if they hold the required truck drivers licence.

#### Personal Requirements

- enjoy practical work
- physically fit and capable of lifting and carrying heavy items
- able to follow instructions.

#### Education and Training

You can work as a truck offsider without formal qualifications. You will probably get some informal training on the job.

You can also become a truck offsider through a traineeship in Transport and Logistics (Road Transport). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Some employers prefer truck offsideers to have a truck drivers licence.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Opportunities for truck offsideers are mainly in the private sector, although some offsideers are employed by government organisations. Competition for positions is usually strong and work may be on a casual basis.

#### For Further Information

- Australian Trucking Association ☎ www.atatruck.net.au

- Transport and Logistics Industry Skills Council  
☎ www.tlisc.com.au
- Transport Workers' Union of Australia (VIC/TAS) ☎ 1300 727 614  
(Toll Free) ✉ info@twu.asn.au ☎ www.twu.asn.au

#### Related Jobs

Delivery Driver (p 142); Furniture Removalist (p 197); Truck Driver (p 419); Waterside Worker (p 434).

### Tyre Fitter and Repairer

Tyre fitters and repairers fit and repair tyres on vehicles, and identify faults in vehicle stability and tyre wear.

Tyre fitters and repairers may perform the following tasks:

- inspect tyres and related components
- repair tyres and tubes
- select tyres and rims for particular vehicles
- balance tyres and wheels
- road test vehicles.

#### Specialisation

**Wheel Aligner** - identifies faults in vehicle stability and tyre wear. This involves checking and servicing the steering system and suspension, identifying and interpreting tyre and rim regulations, balancing wheels and making adjustments, and doing post-alignment checks and road testing.

Tyre fitters and repairers and wheel aligners mainly work indoors.

#### Personal Requirements

- enjoy practical and manual activities
- no allergic reactions to petrol, grease, oil or other chemicals
- interested in motor vehicles
- good mechanical skills.

#### Education and Training

You can work as a tyre fitter and repairer without formal qualifications. You will probably get some informal training on the job.

You can also become a tyre fitter and repairer through a traineeship in Automotive Mechanical. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

A drivers licence is desirable.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Tyre fitters and repairers and wheel aligners are mostly employed by tyre centres and wheel alignment specialists.

#### For Further Information

- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ vacc@vacc.com.au ☎ www.vacc.com.au

#### Related Jobs

Automotive Parts Interpreter (p 82); Exhaust Fitter and Repairer (p 170); Heavy Vehicle Motor Mechanic (p 212); Light Vehicle Motor Mechanic (p 250); Panel Beater (p 307); Radiator Repairer (p 344); Vehicle Body Builder (p 425); Vehicle Serviceperson (p 427); Windscreen Fitter (p 437).



## University Lecturer

University lecturers teach tertiary students in one or more subject areas and conduct research projects.

University lecturers may perform the following tasks:

- prepare and deliver lectures, tutorials and practical classes
- assess student assignments and grade student performance
- keep an eye on student progress and supervise research students
- discuss with students their progress and/or aspirations
- organise and conduct field trips and excursions
- research a specialised field of study and publish the findings in books or professional and academic journals
- attend meetings and conferences to do with research, budget and policy matters and departmental administration
- plan courses in consultation with other staff, arrange course timetables and coordinate and supervise teaching assistants to conduct classes
- serve on departmental or faculty committees dealing with general departmental and administrative concerns
- prepare departmental budgets and associated reports
- provide professional consultative services to government and industry.

University lecturers may be employed on a full-time, part-time, contractual or casual basis. With further training and experience, a university lecturer may be promoted to a position of educational leadership, such as dean of a faculty or college principal.

### Personal Requirements

- academic ability
- interested in original research
- enjoy, and have aptitude for, teaching
- good oral and written communication skills
- confidence in presenting information to an audience and fielding questions
- able to work as part of a team
- leadership skills
- organisational and supervisory skills
- able to analyse and solve problems.

### Education and Training

To become a university lecturer you usually have to complete a degree in your field, preferably at a masters or doctoral degree level. Relevant courses are widely available. Consult institution handbooks for more information on courses in your field of interest. Previous teaching, research and/or industry experience is also looked on favourably by employing institutions.

Postgraduate teaching courses may help you gain employment. Entry to postgraduate teaching courses usually requires completion of a degree plus relevant work experience. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact the universities you are interested in for more information as requirements may change.

### Employment Opportunities

Tertiary institutions, such as universities, offer lectureships and other tertiary teaching positions. Lecturers may also be self-employed, working as consultants or in a professional practice. Competition for available positions is very strong.

### For Further Information

Contact your local university for further information regarding this occupation.

### Related Jobs

Historian (p 212); Technical and Further Education Lecturer (p 399); Training Officer (p 414); Writer (p 441).

## Upholsterer

Also known as Furniture Upholsterer.

Upholsterers repair, cover or re-cover furniture with fabric or other material.

Upholsterers may perform the following tasks:

- repair upholstered furniture by replacing covers, webbing, padding and springs
- discuss colour, fabric, style and cost of upholstery with clients
- staple lengths of webbing (like wide tape) onto the underside of the furniture frame
- stretch webbing from side to side, interlacing it to form a base for the padding
- lace tops of springs together to prevent sideways movement and staple hessian to the frame
- cut and fit foam padding
- measure and cut covering material, join sections and tack fabric onto the furniture frame
- cover staples with decorative braid, trim, buttons or fancy nails and attach calico to the underside of the furniture.

Upholsterers may work in one of, or a combination of, four main fields:

**Antique and Reproduction Upholstery** which involves restoring genuine antiques or recreating the style of a certain era of history.

**Custom Upholstery** which involves building furniture for special purposes such as for use in hotels, ships and airports.

**Production Upholstery** which involves upholstering mass produced furniture in sections for the domestic or commercial market.

**Renovation and Repair Upholstery** which involves replacing old and damaged upholstery.

Upholsterers generally work in workshops but occasionally they may be required to work in clients' homes or other sites.

Upholsterers stand for most of the day as the furniture is normally placed on a bench top while work is carried out.

### Personal Requirements

- enjoy practical and manual work
- able to work neatly and accurately
- interested in furniture
- physically fit
- normal colour vision
- good hand-eye coordination.

### Education and Training

To become an upholsterer you usually have to complete an apprenticeship in Upholstery or Production Upholstery. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Upholsterers are employed by furniture makers in the production of commercial, household, marine and caravan furniture. Most furniture upholsterers work in factories on new furniture. Some work in small



businesses, where they may do antique, customised, renovation, repair and recovery work, or combine repair and manufacture.

Those specialising in restoration work require knowledge of old and modern techniques. Opportunities for self-employment are greater in restoration work.

#### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Furnishing Industry Association of Australia Ltd ☎ (02) 4340 2000  
✉ [admin@fiaa.com.au](mailto:admin@fiaa.com.au) ☎ [www.fiaa.com.au](http://www.fiaa.com.au)

#### Related Jobs

Cabinetmaker (p 99); Clothing and Soft Furnishing Production Worker (p 121); Furniture Polisher (p 196); Interior Decorator (p 233); Interior Designer (p 234); Leather Goods Maker (p 246); Wood Machinist (p 439).

## Urban and Regional Planner ✱

Also known as Planner, Town Planner and Urban Designer.

Urban and regional planners develop policies and plans for the use of land and resources. They advise on the economic, environmental, social and cultural needs of particular localities or regions as they relate to the built environment and the community.

They also work on large-scale projects such as new suburbs, towns, industrial areas, commercial and retail developments, urban renewal projects and transportation links.

Urban and regional planners may perform the following tasks:

- develop long-range objectives to cope with growth and change, in consultation with affected communities
- perform surveys and site inspections
- compile and analyse information on physical, economic, social, legal, political, cultural and environmental factors which affect land use
- discuss plans with local communities, private companies and government organisations
- consider new developments or re-developing areas, and advise state and local governments on planning issues for projects such as new suburbs, transportation links, industrial estates, retail complexes and housing developments
- draw up plans for development or re-development and evaluate proposals in terms of benefits and costs, recommending how schemes can be carried out
- prepare urban and rural subdivision plans, taking into account various land uses, including residential, public open space, schools and shops
- prepare and coordinate economic, social and environmental impact studies
- provide evidence for appeals in planning disputes
- consult with, and act as an advocate for, community groups or developers
- assist developers to obtain planning permits
- design strategies to guide land and resource use and development in particular locations
- recommend a course of action that ensures local and regional needs will be met, by taking into account factors such as amenity, community facilities, access to employment, retail housing and transport
- supervise and work with associates and technicians.

Planning is a broadly based discipline and it is possible to specialise in a wide range of fields, including strategic planning, urban design, environmental impact assessment, residential planning, commercial and industrial planning, heritage planning, tourism planning and social planning.

Planners work closely with professionals in other fields (e.g. surveying, urban design, architecture, engineering, environment and conservation, property development, community services and transport planning). There is a high level of public contact as planners spend a lot of time in meetings and discussions. Time is also spent on field visits, writing reports and performing research. Planners are also required to prepare documentation of decisions for independent review and are often called upon to appear as expert witnesses before appeal hearings.

#### Specialisation

**Transportation Planner** - balances public and private transport to avoid congestion in cities.

#### Personal Requirements

- interested in social, economic, environmental and cultural issues
- good oral and written communication skills
- able to produce detailed and accurate work
- good analytical and problem-solving skills.

#### Education and Training

To become an urban and regional planner you usually have to study urban, regional, community and/or environmental planning at university. You may also consider other degrees that emphasise related fields of architecture, economics, environmental management or science, geography and sociology. To get into the courses below you usually need to gain your VCE with English. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

#### Degree Courses

##### *La Trobe University - Bendigo Campus:*

Bachelor of Urban, Rural and Environmental Planning, 4 years full time or equivalent

##### *RMIT University - City Campus:*

Bachelor of Applied Science (Planning), 4 years full time

##### *University of Melbourne - Parkville Campus:*

Bachelor of Environments, majoring in urban design/planning, 3 years full time or equivalent

#### Additional Information

Degree studies in urban and regional planning are necessary for professional recognition by the Planning Institute of Australia (PIA).

#### Employment Opportunities

The majority of urban and regional planners work in metropolitan areas and regional centres. However, the number of opportunities available in country areas is growing. Some consultant planners have government and private-sector clients in the Asia-Pacific region.

Urban and regional planners work in state, territory and local governments and there are also opportunities for employment in specialised consulting practices or financial and real estate institutions. Planners may also assist in conservation and development issues for large resource projects. Within the public sector there is a clear career structure. The private sector is more varied, however, and there are opportunities for planners to work in many areas, including environmental planning, social planning, economic development, urban design, transport planning and planning law.



#### For Further Information

- Planning Institute Australia (National Office) ☎ (02) 6262 5933  
✉ [info@planning.org.au](mailto:info@planning.org.au) 🌐 [www.planning.org.au](http://www.planning.org.au)

#### Related Jobs

Architect (p 70); Civil Engineer (p 116); Environmental Scientist (p 169); Geographer (p 200); Geographic Information Systems Officer (p 201); Landscape Architect (p 242); Quantity Surveyor (p 343); Surveyor (p 389).

### Usher

Ushers check tickets and assist people to find seats in cinemas, theatres, entertainment centres and outdoor sporting and entertainment events.

Ushers may perform the following tasks:

- answer queries about the availability of seats, the length and starting time of the show or performance, and the location of facilities such as toilets and snack bar
- assist with ticket sales and work behind the bar selling snacks, drinks and/or alcohol
- sell programs
- check tickets and lead or direct patrons to seats
- manage queues, control crowds and monitor the audience's behaviour during performances
- give passes to patrons at interval
- assist in finding lost property
- manage complaints
- assist with security
- make sure that the venue is clean and check for lost property after patrons have left
- change advertising and display posters.

Ushers are often required to do shift work, including evenings and weekends. Many are employed on a part-time or casual basis. Employers often prefer a minimum age of 18, as shift work can involve working late and ushers may be required to serve alcohol.

Ushers are required to stand for long periods. Cinema ushers usually undertake some ticket sales, cash handling for arcade games, and projection work in addition to ushering duties.

#### Personal Requirements

- enjoy working with people
- good communication and customer service skills
- neat personal appearance
- able to work as part of a team
- able to handle cash and calculate figures
- self-management and initiative.

#### Education and Training

You can work as an usher without formal qualifications, but employers generally require at least Year 10. You will probably get some informal training on the job.

You can also become an usher through a traineeship in Live Production, Theatre and Events or Venues and Events (Customer Service). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Entertainment Training Package that will expand your career opportunities within this industry.

See the Learning Pathways section for more information. If working in a venue that serves alcohol you may need to be 18 years or above and possess a Responsible Service of Alcohol Certificate.

#### Employment Opportunities

There are many people seeking employment in this field. As turnover of staff is fairly high, there is a constant demand to replace those leaving the occupation. Experience is the major factor in advancement. Occasionally there are opportunities for ushers to rise to managerial positions.

#### For Further Information

- Innovation and Business Skills Australia 🌐 [www.ibsa.org.au](http://www.ibsa.org.au)
- Media, Entertainment and Arts Alliance ☎ 1300 656 512  
✉ [mail@alliance.org.au](mailto:mail@alliance.org.au) 🌐 [www.alliance.org.au](http://www.alliance.org.au)

#### Related Jobs

Cleaner (p 119); Porter - Hotel/Motel (p 328); Sales Assistant (p 358); Ticket Seller (p 405).

## V

### Valuer

Also known as Property Valuer.

Valuers assess land, property and other items such as commercial equipment and objects of art, and provide advice on the administration and commercial use of land and property.

Valuers may perform the following tasks:

- examine items and select methods of evaluation
- calculate values by considering market demand, condition of items, future trends and other factors (e.g. location, size, zoning legislation and the availability of services, such as transport and parking, in the case of real estate)
- submit written assessments of value
- provide consultancy advice on valuation matters
- give evidence in legal proceedings and mediate on valuation matters
- provide rental valuations for arbitration purposes.

Valuations are made for many different purposes, such as rating and taxing, finance, financial reporting, investment, insurance, rental, sale and purchase. A significant proportion of a valuer's time is also spent writing reports. A valuer's competence is largely judged on the quality and thoroughness of a report.

Valuers have a lot of contact with the public and may be required to spend a lot of time travelling.

#### Specialisation

**Real Estate Valuer** - works in the valuation of city, suburban or country real estate and in particular areas such as commercial, industrial, residential, rural, financial reporting, hotel and business properties, or plant and machinery. They may consult with solicitors, surveyors, town planners, architects, accountants, property developers, owners and financiers. They may also analyse property investment returns, act as expert witnesses to argue on behalf of people whose property has been repossessed, work out appropriate rentals and provide market valuation reports.

#### Personal Requirements

- good character and reputation
- good communication skills



- reasonable ability in mathematics
- sound judgment and good analytical skills.

#### Education and Training

To become a real estate valuer you usually have to complete a degree with a major in property. Valuers specialising in other fields, such as machinery, art, collectibles or antiques, usually have qualifications or extensive experience in their area of specialisation. Additional training is usually given on the job. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered via distance education. Contact the institutions you are interested in for more information as requirements may change.

#### Degree Courses

##### Deakin University - Burwood Campus:

Bachelor of Property and Real Estate, 3 years full time or equivalent

##### RMIT University - City Campus:

Bachelor of Applied Science (Property), 4 years full time

Bachelor of Applied Science (Project Management), majoring in property (valuation), 4 years full time

Bachelor of Applied Science (Valuation), 4 years full time

##### University of Melbourne - Parkville Campus:

Bachelor of Environments, majoring in property, 3 years full time or equivalent

#### Additional Information

Real Estate valuers who have completed an approved course can apply for membership of the Australian Property Institute (API) and, with further experience, become a Certified Practising Valuer (CPV). Please see the CPV website for more information ([www.cpv.org.au](http://www.cpv.org.au)).

Non-real estate valuers have the opportunity to become members of The Auctioneers and Valuers Association of Australia.

#### Employment Opportunities

Valuers employed by government departments generally work full time on valuations. Valuers employed by private organisations may spend part of their time on other tasks such as real estate sales or property management.

In the private sector most valuers are employed by valuation firms, auction houses, real estate agencies and various financial institutions such as banks, insurance companies and building societies. There are also opportunities for self-employment.

Opportunities for transfer and promotion are available between companies, or into management of property or real estate. Movement into related areas of employment such as property development and investment management is also possible.

Prospects can fluctuate with the level of activity in the industry of your specialisation.

#### For Further Information

- The Auctioneers and Valuers Association of Australia (Inc)  
☎ (02) 8765 1573 ✉ [aucval@atu.com.au](mailto:aucval@atu.com.au)  
🌐 [www.avaa.com.au](http://www.avaa.com.au)
- Australian Property Institute (VIC) ☎ (03) 9644 7500  
✉ [apivic@vic.api.org.au](mailto:apivic@vic.api.org.au) 🌐 [www.vic.api.org.au](http://www.vic.api.org.au)
- The Real Estate Institute of Victoria Ltd ☎ (03) 9205 6666  
✉ [training@reiv.com.au](mailto:training@reiv.com.au) 🌐 [www.reiv.com.au](http://www.reiv.com.au)
- Australian Valuers Institute ☎ (02) 9876 1666  
✉ [admin@valuersinstitute.com.au](mailto:admin@valuersinstitute.com.au)  
🌐 [www.valuersinstitute.com.au](http://www.valuersinstitute.com.au)

#### Related Jobs

Auctioneer (p 78); Conveyancer (p 130); Financial Dealer and Broker (p 179); Land Economist (p 241); Lawyer (p 244); Real Estate Salesperson (p 346); Settlement Clerk (p 367); Stock and Station Agent (p 384); Strata Managing Agent (p 386).

## Vehicle Body Builder

Vehicle body builders manufacture purpose-built bodies to fit chassis produced by other manufacturers. They also modify and repair vehicle bodies.

They may work on buses, coaches, caravans, armoured vans, tray and van bodies, mobile workshops, semi-trailers, refrigerated vans, horse floats, fire trucks and special police vehicles.

Vehicle body builders may perform the following tasks:

- construct framework sections in metal, wood, fibreglass and other materials by working from engineering drawings, and by using shaping machinery and all types of welding and cutting equipment
- form complete frameworks by welding or bolting sections to the vehicle's frame
- make the panels used to cover the framework by cutting, shaping and attaching panels of sheet metal, aluminium, stainless steel or reinforced plastic
- fit axles, suspensions and brakes
- design and fit mechanised equipment such as winches and hoists to various types of vehicle chassis
- install door handles, locks and hinges
- design and carry out chassis alterations in consultation with engineers, or alter assembly line vehicles to special requirements.

As most vehicle body builders construct frames from metals, workshops can be noisy at times. Protective clothing and equipment must be worn when required.

#### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- an eye for detail
- good at technical activities
- interested in design and fabrication using metals and other products.

#### Education and Training

To become a vehicle body builder you usually have to complete an apprenticeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Workers from related trades such as boilermaking, welding and sheet metal work may also enter the occupation.

#### Employment Opportunities

Vehicle body builders are employed primarily in the transport equipment industries, including bus and rail transport. A few are employed by firms that perform repair work. Some are self-employed.

Because of the broad range of skills required, vehicle body builders can often transfer to related trade occupations that involve metal fabrication, hydraulics, mechanical fitting, sheet metal work or



finishing. In large organisations vehicle body builders occasionally work as technical officers or technicians, or in sales.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Engineering Tradesperson - Fabrication (p 164); Panel Beater (p 307); Shipwright (p 371); Tyre Fitter and Repairer (p 421); Vehicle Dismantler (p 426); Vehicle Painter (p 426); Vehicle Trimmer (p 427); Windscreen Fitter (p 437).

## Vehicle Dismantler

Also known as Wrecker.

Vehicle dismantlers recover parts from vehicles for resale to customers.

Vehicle dismantlers may perform the following tasks:

- remove panels, bumper bars, steering wheels, seats and other reusable body parts, using hand and power tools
- take apart engines, transmission systems, electrical components, wheels, brakes and other parts which can then be placed into stock or sold
- clean parts so that they are ready for resale
- tag and store parts
- move body parts using a forklift or crane
- handle questions or sales by telephone or in person
- carry out minor paperwork.

Vehicle dismantlers may work indoors (storage and administration), or outdoors (disassembling vehicle parts). They must have a good knowledge of products and prices.

#### Personal Requirements

- enjoy practical and manual activities
- good hand-eye coordination
- good communication skills
- interested in motor vehicles
- reasonably fit
- able to work unsupervised.

#### Education and Training

You can work as a vehicle dismantler without formal qualifications. You will probably get some informal training on the job.

You can also become a vehicle dismantler through a traineeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Vehicle dismantlers using a forklift are required by law to have an appropriate licence. See the entry for Forklift Operator for details.

#### Employment Opportunities

Vehicle dismantlers are mainly employed by small motor wrecking firms.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Automotive Parts Interpreter (p 82); Panel Beater (p 307); Vehicle Body Builder (p 425); Vehicle Painter (p 426); Vehicle Trimmer (p 427).

## Vehicle Painter

Also known as Spray Painter.

Vehicle painters prepare surfaces of vehicles, match and mix colours, and apply primer and finishing coats of paint.

Vehicle painters may perform the following tasks:

- remove rough spots on vehicle panels and sand surfaces by hand or with electric/air sanders
- mix and match paint so that it is similar to the existing paint shade, or select pre-mixed paint
- apply primer and finishing coats using spray guns and rub down surfaces between coats
- touch up paintwork and apply polish to vehicles
- remove masking papers and wax and polish finished paintwork
- paint signs or artwork on vehicles
- treat vehicles with rust-proofing chemicals.

Vehicle painters wear protective clothing and face masks.

#### Personal Requirements

- enjoy practical and manual work
- good hand-eye coordination
- normal colour vision
- no breathing-related problems
- no allergies to thinners or paints
- able to stand or bend for lengthy periods.

#### Education and Training

To become a vehicle painter you usually have to complete an apprenticeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Vehicle painters work for crash repair firms and motor vehicle manufacturers. Some are self-employed, usually in partnership with panel beaters. Experienced vehicle painters may become representatives for paint manufacturers or assessors with insurance companies.

#### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

#### Related Jobs

Industrial Spray Painter (p 226); Panel Beater (p 307); Vehicle Body Builder (p 425); Vehicle Dismantler (p 426); Vehicle Trimmer (p 427).



## Vehicle Serviceperson

Vehicle servicepersons diagnose, service and repair a range of mechanical and related vehicle components.

Vehicle servicepersons may perform the following tasks:

- raise vehicles using hydraulic hoists or jacks
- work with motor mechanics to dismantle or remove engine assemblies, transmissions, steering mechanisms and other components
- work with motor mechanics to repair or replace worn or defective parts and reassemble mechanical components
- change oil and filters and carry out lubrication and refuelling
- clear and clean workshops, working surfaces, tools and equipment.

Much of the work is done in open workshops and under noisy conditions.

### Specialisations

**Automotive Underbody Serviceperson** - inspects vehicle systems and components and undertakes diagnostic procedures, before the repair and servicing of vehicle braking systems, steering and suspension systems and exhaust systems.

**Driveline Serviceperson** - diagnoses, repairs and services clutch assemblies, manual transmissions, final drive assemblies, drive shafts, tail shafts, chains, tracks, gears and associated components for light and heavy vehicles, motor cycles, and plant and outdoor power equipment.

**Steering and Suspension Serviceperson** - diagnoses, repairs and services clutch steering system components and suspension systems for light and heavy vehicles, motor cycles, and plant, marine and outdoor power equipment.

### Personal Requirements

- enjoy practical and manual activities
- physically fit
- mechanical aptitude.

### Education and Training

You can work as a vehicle serviceperson without formal qualifications. You will probably get some informal training on the job.

You can also become a vehicle serviceperson through a traineeship in Automotive Vehicle Servicing or Automotive Mechanical. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Vehicle servicepersons work in service stations, workshops and vehicle sales dealerships.

### For Further Information

- Service Station Association Ltd (National Office)  
☎ (02) 9420 5599 or 1800 659 000 (FREECALL)  
🌐 [www.ssa.org.au](http://www.ssa.org.au)
- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)

- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

### Related Jobs

Exhaust Fitter and Repairer (p 170); Radiator Repairer (p 344); Service Station Attendant (p 366); Tyre Fitter and Repairer (p 421); Windscreen Fitter (p 437).

## Vehicle Trimmer

Also known as Auto Upholsterer, Automotive Trimmer and Marine Upholsterer.

Vehicle trimmers make, install, repair, replace or modify the seats, upholstery, linings, interior trim, roof and door linings, and floor coverings of a vehicle. They work on cars, trucks, vintage vehicles, buses, caravans, trains, aircraft and boats.

Vehicle trimmers may perform the following tasks:

- remove old coverings or fittings from vehicles and take new measurements
- select, measure and cut out pieces of fabric, vinyl or leather using shears or electric cutting tools
- sew pieces together using industrial sewing machines
- fit trim in vehicles
- repair and manufacture seat covers
- re-fit, align and check window winding mechanisms, door locks and other interior parts
- waterproof and dustproof vehicles using weather strips and draught sealers
- manufacture work according to drawings and sketches.

### Personal Requirements

- enjoy practical and manual work
- good hand-eye coordination
- able to work neatly and accurately
- able to solve problems
- physically fit
- normal colour vision.

### Education and Training

To become a vehicle trimmer you usually have to complete an apprenticeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Employment Opportunities

Vehicle trimmers work for specialist trimming firms, crash repair firms, car manufacturers and distributors, and other firms that repair or construct automotive vehicles, aircraft or marine craft. It is common for vehicle trimmers to become self-employed due to the relatively low cost of setting up a workshop. Others may work on a sub-contract basis.

### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) 🌐 [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) 🌐 [www.vacc.com.au](http://www.vacc.com.au)

### Related Jobs

Industrial Textiles Fabricator (p 227); Panel Beater (p 307); Vehicle Body Builder (p 425); Vehicle Dismantler (p 426); Vehicle Painter (p 426).



## Vending Machine Servicer

Vending machine servicers maintain and repair coin-operated machines that dispense goods such as drinks, confectionery, cigarettes, postage stamps and tickets.

Vending machine servicers may perform the following tasks:

- fill vending machines with products, including drinks, food and cigarettes
- study product manuals or specifications to keep up to date with new technologies and be familiar with individual vending machines
- perform routine maintenance to keep vending machines in good working condition by regularly oiling moving parts, replacing worn components and keeping essential parts clean
- perform breakdown maintenance on call-out when a vending machine fails
- determine machine problems by talking to customers to find out the nature of the faults and examining the vending machine to find causes
- repair or replace damaged parts, including refrigeration components and worn bearings and cogs, by soldering cracked or broken housings and replacing broken or faulty parts, then reassembling the machine to test that it works
- clear money from machines, account for money collected, and check monitoring systems
- arrange for removal and replacement of vending machines that cannot be repaired on site and have these removed for major repairs or replaced by new machines.

Vending machine servicers may work indoors or outdoors, but they usually work under cover. They will often be mobile and in a different location each day in response to breakdown requests, or to perform on-site maintenance. They may also work in a workshop performing maintenance and/or repairs on vending machines that have either broken down or been returned from on-site lease.

With the increasing complexity of vending machine technologies, an understanding of electrical, electronic and computer hardware/software systems is often required.

### Personal Requirements

- able to solve problems
- enjoy practical and manual work
- good hand-eye coordination
- aptitude for electronics
- mechanical aptitude.

### Education and Training

You can work as a vending machine servicer without formal qualifications. You will probably get some informal training on the job.

You can also become a vending machine servicer through an apprenticeship in Electrical Machine Repair. Entry requirements may vary, but employers generally require Year 10. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Electrotechnology Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Vending machine servicers work for food, beverage and cigarette manufacturers and vending machine suppliers.

In large organisations, opportunities are available for advancement to supervisory positions in charge of a team of servicers and to managerial positions with responsibility for service staff.

### For Further Information

- Australian Industry Group ☎ [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)

### Related Jobs

Business Equipment Technician (p 97); Electrician (p 160); Refrigeration and Airconditioning Mechanic (p 351).

## Veterinarian

Also known as Veterinary Surgeon.

Veterinarians diagnose and treat sickness, disease and injury in all types of animals. They advise on measures to prevent the occurrence or spread of diseases, and on ways to improve the health and productivity of animals. They also supervise safety standards for animal food supplies.

Veterinarians may perform the following tasks:

- examine sick and injured animals and perform diagnostic tests
- examine tissues and samples from sick animals to identify the cause of disease
- treat animals by using drugs, surgical procedures and nursing care
- vaccinate animals to prevent disease
- certify viability of animals for breeding and performance
- give advice to owners and breeders on animal health and care
- humanely kill animals to end pain and suffering or to prevent the spread of disease
- advise on feeding and breeding strategies to achieve maximum production
- notify authorities of outbreaks of animal diseases and certify animals for exportation
- attend horse and greyhound tracks, sporting events and dog and cat shows to monitor and/or advise on the condition of the animals
- assist in public education programs in the promotion and maintenance of the welfare of animals.

Veterinarians may work either indoors or outdoors depending on the location of their employment.

Veterinarians usually work long and irregular hours, especially those in private practice who may be called upon to treat sick animals at any hour of the day or night.

### Personal Requirements

- interested in the health and welfare of animals
- observant
- good analysing and problem solving skills
- good communication skills
- aptitude for science
- an enquiring mind
- organisational and supervisory skills.

### Education and Training

To become a veterinarian you usually have to study veterinary science at university. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics, biology, physics and chemistry are normally required. Entry to the course is highly competitive. Contact the university for more information as requirements may change.

### Degree Courses

University of Melbourne - Parkville Campus:

Bachelor of Science, specialising in veterinary bioscience/Doctor of Veterinary Medicine, 6 years full time



### Additional Information

Students who have completed a 3-year science degree at another institution can apply for entry to the Doctor of Veterinary Medicine at the University of Melbourne as a graduate. Students who enter the Doctor of Veterinary Medicine as graduates will take 4 years full time to complete the course.

Veterinarians abide by a code of practice set down by the Australian Veterinary Association. They must register annually with the Veterinary Surgeons Board or Veterinary Practitioners Registration Board of each state or territory in which they intend to practise.

### Employment Opportunities

Most veterinarians work as principals or associates in private practices. These are small businesses that typically employ one to four veterinarians. Most of the work in private practices involves pet dogs and cats, although there are also some practices specialising in horses. Practices dealing mainly in farm animals are usually based in country towns and provide services to cattle, sheep, pigs and occasionally other farm species, as well as to domestic animals.

Government departments often employ veterinary graduates. They may be involved in livestock disease control and eradication; diagnostic service work; research on animal disease, meat quality and hygiene inspection; and livestock quarantine.

The demand for veterinarians depends on the level of pet ownership and the willingness and ability of pet owners to pay for veterinary services. Government staffing policy, the viability of farm animal practices, the effect of natural conditions on animals (e.g. floods, droughts and fire) and developments in livestock management also affect the demand for veterinarians.

### For Further Information

- Australian Veterinary Association (National) ☎ (02) 9431 5000  
✉ members@ava.com.au 🌐 www.ava.com.au

### Related Jobs

Agricultural Scientist (p 57); Animal Attendant (p 66); Animal Technician (p 67); Biotechnologist (p 89); Health Promotion Officer (p 210); Hospital Administrator (p 217); Microbiologist (p 274); Pharmacologist (p 316); Primary Products Inspector (p 330); Toxicologist (p 410); Veterinary Nurse (p 429); Zoologist (p 443).

## Veterinary Science at Melbourne.

vet.unimelb.edu.au/



THE UNIVERSITY OF  
MELBOURNE  
CRICOS: 00116K

## Veterinary Nurse

Veterinary nurses assist veterinarians in the treatment and care of animals needing medical and/or surgical attention.

Veterinary nurses may perform the following tasks:

- assist veterinarians during consultations, examinations and treatments
- restrain animals while the veterinarian examines or treats them
- prepare animals for anaesthesia and surgery by clipping and shaving their fur or hair and disinfecting or swabbing skin
- assist veterinarians in administering and maintaining anaesthesia and, during surgical procedures, by handling instruments; swabbing blood; monitoring anaesthetics; oxygen and intravenous fluids; and applying post-operative dressings

- perform diagnostic laboratory tests, including urine and faecal tests and simple blood tests, and assist veterinarians to produce diagnostic radiographs
- place animals in cages for recovery from operations and monitor their condition
- give medication to animals under direction of a veterinarian
- bathe, brush, feed and exercise hospitalised animals
- monitor surgical and anaesthetic recovery of animals
- clean examination tables with antiseptic between consultations, and clean animal cages, floors, benchtops, consulting rooms, waiting rooms and surgeries
- sterilise instruments, dressings and other equipment
- maintain stock control such as medicines, bandages, cotton wool, syringes, etc.
- maintain equipment in working order
- admit and discharge animals attending the surgery
- perform reception duties including answering the telephone, making appointments, preparing accounts, accepting payments and writing receipts
- provide information on nutrition, parasite control and animal behaviour
- record and maintain clinical and office records of animals attending the surgery, usually on a computer.

Veterinary nurses work as part of a team in veterinary consulting rooms, surgeries and hospitals. Working hours may be irregular, including evening and weekend work.

### Personal Requirements

- enjoy working with animals
- able to handle animals with confidence and patience
- able to make accurate observations
- good communication skills
- good organisational skills
- able to work as part of a team.

### Education and Training

To become a veterinary nurse you usually have to complete a certificate in veterinary nursing. Entry to the certificate courses below usually requires at least Year 10. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a veterinary nurse through a traineeship in Veterinary Nursing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

TAFE Victoria - Various Locations:

Certificate IV in Veterinary Nursing

### Additional Information

Students are usually required to organise access to a veterinary clinic for full-time or part-time employment and work practice.

### Employment Opportunities

Veterinary nurses are mainly employed by veterinarians in private practices. Some find work looking after animals in veterinary research or teaching institutions.

Some experienced veterinary nurses are now gaining employment in marketing and merchandising with veterinary pharmaceutical organisations. A small number are also entering the field of veterinary practice management, or specialising in specific areas such as dental, surgical support or emergency and critical care nursing.



#### For Further Information

- Veterinary Nurses Council of Australia (National Office)  
☎ (03) 5439 3202 ✉ vnca@vnca.asn.au 🌐 www.vnca.asn.au
- Australian Veterinary Association (National) ☎ (02) 9431 5000  
✉ members@ava.com.au 🌐 www.ava.com.au

#### Related Jobs

Animal Attendant (p 66); Animal Technician (p 67); Laboratory Worker (p 240); Veterinarian (p 428).

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### Visual Merchandiser

Also known as Window Dresser.

Visual merchandisers develop floor plans and three-dimensional presentations of goods and services in order to maximise sales. These include window areas, interior point-of-sale displays and special promotions. They also promote services such as travel and particular events such as 'home shows'.

Visual merchandisers may perform the following tasks:

- communicate with managers of department stores to work out the floor layout and display points, as well as how and what items are to be displayed
- design window or internal displays based on a theme, style or trend of advertising
- obtain props and accessories for constructing displays
- make and paint props and signs
- dress mannequins and use appropriate lighting to display merchandise for the best presentation possible
- arrange ticketing and signage
- take down displays after promotion.

Visual merchandisers may be required to carry equipment, climb ladders and work in confined areas. Those employed by large department stores or firms may travel between head office and branches. They may need to work at night and on weekends and public holidays.

#### Personal Requirements

- enjoy creative and artistic activities
- creative and artistic aptitude
- good hand-eye coordination
- good colour sense
- good drawing and design abilities.

#### Education and Training

You can work as a visual merchandiser without formal qualifications, although entry to this occupation may be improved if you have qualifications.

Entry to the certificate course below usually requires Year 10 or relevant work experience. Entry to the diploma course usually requires you to gain your VCE or Year 12. As subjects can vary between institutions, you should contact the institutions you are interested in for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

#### Certificate Courses

*TAFE Victoria - various locations:*

Certificate III in Retail

#### Diploma Courses

*Kangan Institute - Richmond Campus:*

Diploma of Visual Merchandising

*RMIT University (TAFE Division) - City Campus:*

Diploma of Visual Merchandising

*Swinburne University (TAFE Division) - Prahran and Wantima Campuses:*

Diploma of Visual Merchandising

*Wodonga Institute of TAFE - Wodonga Campus:*

Diploma of Visual Merchandising

#### Employment Opportunities

Visual merchandising requires creative talent and an eye for detail. Main employers include department stores, medium or large retailers, and other businesses such as display and exhibition companies. Some visual merchandisers are self-employed as consultants and trainers. Wholesalers sometimes employ visual merchandisers to work with retailers to maximise sales through visual presentation.

#### For Further Information

- Australian Retailers Association (National Office) ☎ 1300 368 041  
✉ info@retail.org.au 🌐 www.retail.org.au
- Service Skills Australia 🌐 www.serviceskills.com.au

#### Related Jobs

Graphic Designer (p 206); Interior Decorator (p 233); Interior Designer (p 234); Model Maker (p 280); Painter and Decorator (p 306).

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### Viticulturalist

Viticulturalists plan, supervise and coordinate the growing of selected grape varieties for the production of wine.

Viticulturalists may perform the following tasks:

- talk to winemakers
- conduct various laboratory tests to monitor the progressive growth of grapes, to make sure of their quality and calculate the correct time for harvest
- organise the crushing and pressing of grapes, the settling of juice and the fermentation of grape material
- supervise, manage and train winery workers involved in the production and harvesting of grapes
- manage the propagation and cultivation of the vineyard including soil management, irrigation, disease and weed control
- direct and oversee general growing activities such as fertilising and pest and weed control
- supervise the maintenance of the vineyard during the off-season
- give guided tours, conduct tastings and advise visitors about various aspects of wine and grapes
- keep records of techniques used and harvest outcomes for each season.

Viticulturalists work indoors in laboratories, offices and grape processing facilities. They also spend a lot of time outdoors in vineyards.

Scientific knowledge is increasingly important in viticulture and some viticulturalists specialise in the research and development of grape varieties.

#### Personal Requirements

- interested in horticulture
- able to analyse and solve problems
- able to make accurate observations
- good communication and interpersonal skills
- good organisational skills
- flexibility and adaptability
- enjoy outdoor work
- free from, or able to manage, plant allergies and hay fever.



## Education and Training

To become a viticulturalist you usually have to study wine science, viticulture or oenology at university. To get into the courses below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English, mathematics and biology are normally required. Contact the universities you are interested in for more information as requirements may change.

### Degree Courses

*La Trobe University - Albury-Wodonga, Bendigo and Bundoora*

#### Campuses:

Bachelor of Science, majoring in viticultural science and wine production, 3 years full time or equivalent (Albury-Wodonga offers first year only)

*Northern Melbourne Institute of TAFE - Epping Campus:*

Bachelor of Viticulture and Winemaking, 3 years full time or equivalent

### Additional Information

Graduates are eligible to join the Australian Society of Wine Educators and state wine industry associations.

### Employment Opportunities

The majority of positions for viticulturalists are in NSW, SA, Victoria and WA. Wineries vary in size from small operations (perhaps family-owned) to large companies employing many people. You can gain experience by obtaining temporary or seasonal positions in a variety of winemaking regions and countries.

Viticulturalists with considerable experience can work as consultants to different wineries, although the majority of wineries prefer to have their own viticulturalist.

### For Further Information

- Australian Wine and Brandy Corporation ☎ (08) 8228 2000  
🌐 [www.wineaustralia.com](http://www.wineaustralia.com)
- National Wine Centre of Australia ☎ (08) 8303 3355  
✉ [nwc.info@adelaide.edu.au](mailto:nwc.info@adelaide.edu.au) 🌐 [www.wineaustralia.com.au](http://www.wineaustralia.com.au)
- Winemakers' Federation of Australia 🌐 [www.wfa.org.au](http://www.wfa.org.au)

### Related Jobs

Agricultural Scientist (p 57); Botanist (p 91); Environmental Scientist (p 169); Food Technologist (p 189); Winemaker (p 437); Winery Worker (p 438).

- serve food and drinks
- carve meat
- make up bills and present them to customers
- handle money or credit cards
- clear tables and return dishes and cutlery to kitchens.

Waiters often work split shifts and in the evenings, weekends and public holidays. They spend long periods on their feet and may have to deal with difficult customers. Uniforms may be supplied by employers.

### Specialisations

**Commis Waiter** - assists more experienced waiters in clearing and setting tables and transferring food from the kitchen or serving station to customers at tables.

**Drinks Waiter and Wine Steward (Sommelier)** - specialises in serving wine and other beverages.

**Maitre d'** - is an experienced waiter that supervises the work of other waiters and assists in the administration of the restaurant.

**Silver Service Waiter** - generally a more experienced waiter who specialises in serving food, using a fork and spoon, from platters directly to the guests' plates at the table.

### Personal Requirements

- well presented
- good communication skills
- good memory
- polite and patient
- friendly, efficient and speedy
- enjoy working with people
- able to work as part of a team
- prepared to work weekends and evenings
- able to handle money
- stamina.

### Education and Training

You can work as a waiter without formal qualifications. You will probably get some informal training on the job.

You can also become a waiter through a traineeship in Hospitality. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

To serve alcohol, waiters must be a minimum 18 years of age and, depending on the liquor licensing requirements of the venue you are working in, you may need to hold a Responsible Service of Alcohol (RSA) certificate. RSA short courses are widely offered in Victoria by TAFE institutes and Registered Training Organisations. Contact Consumer Affairs Victoria for further details.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Tourism, Hospitality and Events Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Waiters work in hotels, motels, restaurants, clubs, recreation and convention centres and other entertainment venues. Most waiters are employed in cities, although many work in larger country centres where there are tourist resorts.

Waiters who have undertaken appropriate training or who have suitable experience are highly regarded by employers. A trainee may commence as a commis waiter. Skilled waiters may be promoted to

# W

## Waiter

Also known as Food and Beverage Attendant and Waitperson.

Waiters serve food and drinks to guests in hotels, restaurants, clubs and similar establishments.

Waiters may perform the following tasks:





- take restaurant reservations
- set tables with clean linen or place mats, cutlery, crockery and glasses
- welcome and seat customers and hand menus to them
- talk to guests about the menu and drinks and recommend combinations
- in some cases promote local produce and attractions to visitors from interstate and overseas
- take customers' orders and pass them to kitchen staff or bar attendants



maitre d', restaurant manager and food and beverage manager positions.

As turnover is high in this occupation there is usually a steady demand for replacement staff.

#### For Further Information

- Service Skills Australia  [www.serviceskills.com.au](http://www.serviceskills.com.au)
- Tourism Training Australia  (02) 9286 3944  
 [reception@tourismtraining.com.au](mailto:reception@tourismtraining.com.au)  
 [www.tourismtraining.com.au](http://www.tourismtraining.com.au)

#### Related Jobs

Bar Attendant (p 84); Flight Attendant (p 186).

## Ward Assistant

Also known as Patient Service Assistant, Hospital Orderly, Hospital Porter and Orderly.

Ward assistants help allied health professionals and staff in hospitals and other health care establishments with non-medical duties including housekeeping, food service and transportation, and ward, patient and office support.

Ward assistants may perform the following tasks:

- make sure that an adequate supply of clean clothing and linen is available for patients and that soiled items are removed and cleaned
- assist in maintaining stocks of linen and non-medical supplies
- assist in lifting and turning patients and transporting them in wheelchairs or on movable beds
- clean rooms such as bathrooms, showers, utility rooms and offices and clean interior windows
- mop and buff floors, vacuum carpets, remove rubbish and linen and dust all areas
- clean equipment in the pan room such as pan trolleys, buckets, pans, bowls, suction bottles and tubing, commodes, wheelchairs, seats and rinse trays
- clean patients' lockers and tables
- distribute and collect food trays, check food orders and replenish refrigerator supplies
- accompany patients, who are ready to be discharged, to the central waiting area
- transport equipment, X-rays and patient records between wards, departments and theatres
- transport deceased patients from wards to morgue
- assist in emergencies and patient restraint.

Ward assistants work rostered shifts which include night and weekend work. They are on their feet for most of the day. In large hospitals, ward assistants work in a particular department such as outpatients or maternity. In smaller institutions, they may assist in several or all departments.

#### Specialisations

**Porter - Hospital** - collects and transports medical equipment and supplies such as clean linen and surgical tools. Porters perform various cleaning duties and do physical work such as shifting furniture, gas cylinders and other heavy objects.

**Theatre Attendant/Orderly** - sterilises instruments and checks that operating theatre lights and machinery are working correctly. They transport patients to and from operating theatres and may assist with minor tasks during operations.

#### Personal Requirements

- physically fit
- able to lift heavy objects
- caring and supportive attitude
- respect for the rights of others
- able to perform domestic duties efficiently
- good communication skills
- able to work as part of a team
- able to follow instructions.

#### Education and Training

You can work as a ward assistant without formal qualifications. Entry to this occupation may be improved if you have qualifications.

You can also become a ward assistant through a traineeship in Health Support Services. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, or have recognised, additional skills under the Health Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Ward assistants work in public and private hospitals, nursing homes, hospices, some health clinics and after-care centres.

#### For Further Information

- Community Services and Health Industry Skills Council Ltd  
 [www.careersthatsmatter.com.au](http://www.careersthatsmatter.com.au)
- Health Services Union of Australia (National Office)  
 (03) 9341 3328  [hsu@hsu.net.au](mailto:hsu@hsu.net.au)  [www.hsu.net.au](http://www.hsu.net.au)

#### Related Jobs

Cleaner (p 119); Nurse - Enrolled (p 295); Operating Theatre Technician (p 301); Personal Care Worker (p 312); Therapy Aide (p 404).

## Watch and Clock Maker and Repairer

Also known as Time Technologist.

Watch and clock makers and repairers clean, repair and adjust mechanical and electronic watches and clocks.

Watch and clock makers and repairers may perform the following tasks:

- design, create or reconstruct timepieces
- remove watch and clock mechanisms from cases and examine them for signs of wear
- repair or replace faulty parts such as cracked crystals, broken hands and bent teeth or wheels
- clean, test and lubricate each part
- test and maintain minute electronic circuits in watches and clocks and accurately adjust their timekeeping
- reassemble, fit and adjust parts to make sure they work correctly
- replace watch and clock faces, sometimes sealing them so they are waterproof
- provide customers with estimated cost of repairs
- sell new watches and clocks to the public.

The watch and clock industry uses both old and new technologies. The development of electronic components has led to a change from mechanical to electronic watches and clocks. However, the popularity



of expensive, sophisticated mechanical watches in recent times has increased demand for mechanical skills.

Less experienced watch and clock makers and repairers usually work with large clock movements and later progress to the repair of small, delicate watches.

Watch and clock makers and repairers sit for extended periods at workbenches.

#### Personal Requirements

- enjoy technical work
- good eyesight (may be corrected)
- above-average sensitivity of touch
- patience for fine, continuous work
- high level of cleanliness and tidiness
- good hand-eye coordination
- high level of organisational skills.

#### Education and Training

To become a watch and clock maker you usually have to complete an apprenticeship in Engineering - Mechanical Trade. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Watch and clock makers and repairers work in large retail jewellery stores and specialist service centres. Experienced watch and clock makers and repairers are often self-employed. They may also form a business in partnership with a qualified jeweller.

#### For Further Information

- Manufacturing Skills Australia ☎ [www.makeit.net.au](http://www.makeit.net.au)
- Watch and Clock Makers of Australia Inc (NSW)  
☎ (02) 4365 6699 ✉ [wcaaus@bigpond.net.au](mailto:wcaaus@bigpond.net.au)  
☎ [www.wca.org.au](http://www.wca.org.au)

#### Related Jobs

Electrician (p 160); Engineering Tradesperson - Mechanical (p 165); Instrument Fitter (p 229); Jeweller (p 237).

## Water and Wastewater Plant Operator ✱

Water and wastewater plant operators control the pumping of water for supply and storage. They treat water to purify it or to remove waste in order to meet various national standards.

Water and wastewater plant operators may perform the following tasks:

- operate pumps, valves and gates to control the flow of water or waste
- regulate water flow through stages of the treatment such as filtering, the addition of chemicals (e.g. polymers) and aeration
- receive, load and unload chemicals
- monitor flow meters, pressure gauges, power usage and wastewater quality
- take samples and carry out routine analysis
- prepare reports and log details of plant operation
- perform routine servicing and cleaning of water storage facilities, plants and pipes, and repair faults in water supply and storage systems
- service the distribution system leading from the treatment plant
- operate and maintain facilities of the plant, reservoirs and dams

- supervise staff and assist with training of new operators
- conduct school and visitor inspections
- receive, monitor and respond to remote alarms
- operate waste disposal or water purification equipment
- operate locks and adjust the water level in weirs
- control and monitor the biological treatment plant process.

With experience and sometimes further training, it is possible to become a leading hand, supervisor or manager.

Water and wastewater plant operators may specialise in the fields of water treatment, wastewater treatment or maintenance of distribution and collection systems.

Water and wastewater plant operators often work outdoors and sometimes work in remote areas. In treatment plants, which are 24-hour operations, shift work is required.

#### Personal Requirements

- enjoy technical and engineering activities
- physically fit.

#### Education and Training

To become a water and wastewater plant operator you usually have to complete a traineeship in Water Operations. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Water Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

In addition to municipal water treatment plants and local regional water boards, many tourist facilities, beverage manufacturers, mining companies in remote locations and processing industries also require operational personnel. Many positions are in country areas.

New technology has reduced the demand for unskilled operators, and operators are now required to acquire higher-level skills in process monitoring and control.

#### For Further Information

- EE-Oz Training Standards ☎ [www.ee-oz.com.au](http://www.ee-oz.com.au)
- Victorian Water Industry Association ☎ (03) 9639 8868  
✉ [vicwater@vicwater.org.au](mailto:vicwater@vicwater.org.au) ☎ [www.vicwater.org.au](http://www.vicwater.org.au)

#### Related Jobs

Water Services Officer (p 433).

## Water Services Officer ✱

Also known as Water Industry Operator.

Water services officers are responsible for planning, controlling and delivering water for purposes such as irrigation, and commercial, stock and domestic usage.

Water services officers may perform the following tasks:

- plan and order water deliveries
- distribute orders and control water flow
- monitor, regulate and undertake maintenance of storages, reservoirs and pumping stations.



Water services officers work both indoors and outdoors in a variety of weather conditions in rural and metropolitan areas.

#### Specialisation

**Water Inspector** - monitors the allocation and use of water from water resources including streams, rivers and underground water. A water inspector may also receive and assess applications for licences to use water; investigate hydrological records to determine the ability of water resources to meet new requirements or demands; investigate complaints concerning flooding, unauthorised construction work or obstructions to water courses; and administer regulations relating to the licensing of water use.

#### Personal Requirements

- physically fit
- able to work independently
- good communication skills
- comfortable working with computers
- a current drivers licence.

#### Education and Training

To become a water services officer you usually have to complete an apprenticeship in Water Operations. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Water services officers are employed with Melbourne Water and related organisations including local government. Entry level positions are advertised in metropolitan and country newspapers and on organisation websites.

#### For Further Information

- Goulburn-Murray Rural Water Authority ☎ (03) 5833 5500  
✉ [reception@g-mwater.com.au](mailto:reception@g-mwater.com.au) 🌐 [www.g-mwater.com.au](http://www.g-mwater.com.au)
- Victorian Water Industry Association ☎ (03) 9639 8868  
✉ [vicwater@vicwater.org.au](mailto:vicwater@vicwater.org.au) 🌐 [www.vicwater.org.au](http://www.vicwater.org.au)

#### Related Jobs

Hydrographer (p 220); Water and Wastewater Plant Operator (p 433).

## Waterside Worker

Also known as Docker, Stevedore and Wharf Labourer.

Waterside workers stack, check and secure contents of shipping containers prepared for storage or despatch.

Waterside workers may perform the following tasks:

- pack and unpack containers, open and close hatches, and secure cargo to prevent it shifting during voyages
- clean holds and containers and prepare stevedoring (ship-loading) gear
- operate a wide range of light and heavy machinery, including forklifts, skid steer loaders, front-end loaders and a variety of cranes
- monitor and control the refrigeration plant and perform mechanical maintenance on refrigerated containers
- perform a wide range of clerical duties such as recording and checking cargo on arrival, storage or despatch
- direct equipment operations using various types of communication systems

- moor and unmoor ships on arrival and departure
- stack cargo on pallets, trays, flats and slings to facilitate transfer to and from ships
- operate and perform minor maintenance on forklifts, trucks, front end loaders and fixed or mobile cranes
- act as team leader for a wharf or on-ship work team.

Waterside workers usually work outdoors in ports, container terminals and the holds of ships. They work in all weather conditions, except very strong winds, and may have to work with frozen or dangerous goods, in freezers or dusty conditions. They usually work shifts involving nights, weekends and public holidays.

#### Personal Requirements

- enjoy practical and manual work
- physically fit and capable of lifting and carrying heavy items
- good communication and organisational skills
- able to follow instructions.

#### Education and Training

You can work as a waterside worker without formal qualifications. You will probably get some informal training on the job.

You can also become a waterside worker through a traineeship in Transport and Logistics (Stevedoring). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

To perform many of the tasks involved in stevedoring, industry standards require waterside workers to hold a licence to Perform High Risk Work, issued by WorkSafe Victoria. To gain a licence, you will need to register with an approved Registered Training Organisation and work under the supervision of a licensed operator, keeping an approved log book to record competencies achieved during training. Assessment by an independent assessor will then be required. To obtain a licence, you will need to be at least 18 years of age.

Contact WorkSafe Victoria for details of Registered Training Organisations authorised to deliver training and assessment.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Transport and Logistics Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

#### Employment Opportunities

Waterside workers are usually employed by private stevedoring companies, with some workers employed by state port authorities and related organisations including local government. Entry-level positions are advertised in metropolitan and country newspapers as required.

#### For Further Information

- Careers at Sea 🌐 [www.careersatsea.com.au](http://www.careersatsea.com.au)
- Maritime Union of Australia (National Office) ☎ (02) 9267 9134  
✉ [muano@mua.org.au](mailto:muano@mua.org.au) 🌐 [www.mua.org.au](http://www.mua.org.au)
- Transport and Logistics Industry Skills Council  
🌐 [www.tlisc.com.au](http://www.tlisc.com.au)
- Licensing Branch, WorkSafe Victoria ☎ 1300 852 562  
✉ [licensing@worksafe.vic.gov.au](mailto:licensing@worksafe.vic.gov.au) 🌐 [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

#### Related Jobs

Crane Operator (p 136); Delivery Driver (p 142); Dogger (p 151); Forklift Operator (p 195); Furniture Removalist (p 197); Mobile Plant Operator (p 279); Rigger (p 354); Storeperson (p 386); Transport Clerk (p 417); Truck Offsider (p 421).



## Web Designer/Developer

Also known as Webmaster.

Web designers/developers design, create, produce and maintain web pages using relevant software packages.

Web designers may perform the following tasks:

- talk with clients, and discuss ideas to get a clear understanding of their requirements
- develop website content
- manage the image and copyrights of the company on the internet
- decide on the design aspects of the website, such as how to use graphics, links and forms
- make sure that text and graphic elements mesh together as a cohesive, eye-catching work
- develop custom programs to extend the functionality of websites
- talk with writers, designers, system administrators and other IT staff to make sure the website will fulfill its purpose
- maintain or update the website once it is completed by adding new content, illustrations or features
- coordinate other people, such as designers and writers, to help maintain the website.

Web designers are often required to travel locally, nationally and internationally to meet clients and other people working on particular projects, such as designers and systems specialists.

Working conditions can be stressful at times, especially if deadlines need to be met.

### Personal Requirements

- creative and technical aptitude
- good communication skills
- able to work as part of a team
- committed to understanding new technology and upgrading skills.

### Education and Training

You can work as a web designer without formal qualifications. You will probably get some informal training on the job. Skills may be developed through practice and experience. However, entry to this occupation may be improved if you have qualifications.

Entry to relevant certificate and diploma courses usually requires Year 10 and sometimes Year 12/VCE. Entry to degree courses usually requires you to gain your VCE. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

Courses are also offered via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Certificate, diploma and degree courses in web design and information technology are widely available and offered by numerous Registered Training Organisations, including TAFE, and universities in Victoria. Refer to the institution handbooks for further details.

You can also become a web designer through a traineeship in Information Technology (Websites) or Interactive Digital Media. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

Memberships with the Australian Computer Society are available to those who hold, or are working towards, suitable qualifications. There is a range of membership types available, allowing a progression through the various levels as a member's career develops.

### Employment Opportunities

Web designers and developers can work in IT-specific industries and other industries requiring IT expertise. With experience there are opportunities for self-employment.

### For Further Information

- Australian Computer Society ☎ (02) 9299 3666  
✉ [info@acs.org.au](mailto:info@acs.org.au) 🌐 [www.acs.org.au](http://www.acs.org.au)

### Related Jobs

Games Developer (p 198); Graphic Designer (p 206); Multimedia Developer (p 281); Programmer (Information Technology) (p 335); Sales Representative (Information Technology) (p 360); Systems Designer (Information Technology) (p 390).

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## Weight Loss Counsellor

Weight loss counsellors assist clients with advice and practical plans for losing weight or body fat.

Weight loss counsellors may perform the following tasks:

- speak with clients to work out their needs
- give counselling and support to clients
- record the weight and measurements of clients
- advise clients on how to improve their diet
- recommend types of exercise to clients.

### Personal Requirements

- enjoy helping people
- fit and healthy
- good listening skills
- good communication skills
- good motivator.

### Education and Training

You can work as a weight loss counsellor without formal qualifications, but employers usually prefer at least Year 10. You will probably get some informal training on the job.

Entry to this occupation may be improved if you have qualifications relevant to the related jobs of Fitness Instructor and Dietitian. See these entries for further information.

You may also be able to enter this occupation through completion of a Certificate III in Fitness through a Registered Training Organisation, including TAFE.

Costs, duration and entry requirements may vary between courses. See the online entry for Weight Loss Counsellor at [www.jobguide.deewr.gov.au](http://www.jobguide.deewr.gov.au) for more information.

### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Fitness Industry Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Most weight loss counsellors are employed in the personal services industry, as well as the wholesale and retail trade. The majority of weight loss counsellors work part time, but full-time work is becoming more common.

### For Further Information

- Australian Fitness Network (National Office) ☎ (02) 8412 7400  
✉ [info@fitnessnetwork.com.au](mailto:info@fitnessnetwork.com.au) 🌐 [www.fitnessnetwork.com.au](http://www.fitnessnetwork.com.au)
- Weight Watchers ☎ (02) 9928 1300  
✉ [hrmanager@weightwatchers.com.au](mailto:hrmanager@weightwatchers.com.au)  
🌐 [www.weightwatchers.com.au](http://www.weightwatchers.com.au)
- Fitness Australia Incorporated ☎ 1300 211 311  
✉ [info@fitness.org.au](mailto:info@fitness.org.au) 🌐 [www.fitness.org.au](http://www.fitness.org.au)

### Related Jobs

Dietary Aide (p 146); Dietitian (p 147); Fitness Instructor (p 185); Nutritionist (p 298); Sales Assistant (p 358).

## Welfare Worker

Welfare workers work with individuals, families, groups and communities in order to improve quality of life by empowering, educating and supporting people and by helping them to change their social environment.

Welfare workers may perform the following tasks:

- provide support while exploring alternatives with clients who experience difficulties such as marital problems, unemployment, illness or drug abuse
- arrange for clients to be referred to appropriate specialist professionals or community agencies
- help clients with long-term problems to bring about self-directed change in their lives
- assess risks and provide intensive short-term crisis counselling for victims of domestic violence or child abuse
- help to establish or administer neighbourhood house or community groups
- evaluate data and write reports, including submissions requesting funding for continuing programs and new projects
- advocate (act) on behalf of clients who have a grievance against an organisation or government department
- arrange and evaluate support services, such as meals-on-wheels delivery to elderly people living alone, or support for people with disabilities recently relocated from institutions into the community
- recruit, train and coordinate volunteer staff
- assist community groups to identify and implement strategies to deal with local issues.

Welfare workers deal with situations in which emotional, social and financial difficulties may arise.

Some specialise in helping families, adolescents, people with substance abuse issues, homeless people, people with disability, people escaping domestic violence, victims of crime or criminals.

Welfare workers work individually or as part of a team. They may work in an office, visit clients in their homes and attend evening community meetings.

### Personal Requirements

- able to communicate effectively with a wide range of people
- tolerance and an open mind
- good planning and organisational skills
- initiative
- sense of responsibility
- able to deal with conflict in stressful situations
- commitment to human rights and social justice.

### Education and Training

To become a welfare worker you usually have to complete a diploma in community or welfare work. However, entry to this occupation may be improved if you have a degree specialising in community welfare or human services.

Entry to the diploma course below usually requires completion of a Certificate IV in Community Services Work. Entry to the associate degree and degree courses usually requires you to gain your VCE with English. The various institutions have different prerequisites and some have flexible entry requirements. Courses are also offered by distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)), or contact the institutions you are interested in for more information as requirements may change.

### Diploma Courses

*TAFE Victoria - various locations:*

Diploma of Community Services Work

*Monash University - Gippsland Campus:*

Associate Degree in Community Welfare and Counselling, 2 years full time or equivalent

### Degree Courses

*Monash University - Gippsland Campus:*

Bachelor of Community Welfare and Counselling, 3 years full time or equivalent



### University of Ballarat - Mount Helen Campus:

Bachelor of Arts (Rural Social Welfare), 3 years full time or equivalent

### Additional Information

To become a member of the Australian Institute of Welfare and Community Workers (AIWCW) you need to complete a degree or 2-year diploma in community welfare work, community development, disability work, youth work or similar disciplines at a campus approved by the AIWCW. Contact the institute for further information and a list of approved courses.

### Employment Opportunities

Welfare workers are employed by state, territory and federal government departments, local councils, hospitals, health centres, unions and industry, and also in non-government organisations and community groups. Increasing numbers are self-employed in private practice or as consultants.

Some may be employed as fieldworkers, project officers, program coordinators, community health workers, student or staff counsellors or human services workers. Some welfare workers are employed in supervisory, administrative or policy-making roles.

Demand for this occupation is largely influenced by government funding in the social welfare field.

### For Further Information

- Community Services and Health Industry Skills Council Ltd  
✓ [www.careerthatmatter.com.au](http://www.careerthatmatter.com.au)
- The Australian Institute of Welfare and Community Workers (National Office) ☎ (03) 9654 8287 ✉ [info@aiwcw.org.au](mailto:info@aiwcw.org.au)  
✓ [www.aiwcw.org.au](http://www.aiwcw.org.au)

### Related Jobs

Aboriginal/Torres Strait Islander Health Worker (p 47); Community Worker (p 122); Disability Services Instructor (p 148); Health Promotion Officer (p 210); House Parent (p 219); Orientation and Mobility Instructor (p 304); Probation and Parole Officer (p 333); Public Servant - Australian Public Service (p 340); Religious Leader (p 353); Social Worker (p 373); Sociologist (p 374); Special Care Worker (p 376); Teacher - Early Childhood (p 392); Teacher - English as a Second Language (p 393); Youth Worker (p 442).

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## Windscreen Fitter

Also known as Autoglazer and Vehicle Glazer.

Windscreen fitters repair and replace windscreens and side and rear glass in motor vehicles.

Windscreen fitters may perform the following tasks:

- repair laminated windscreens
- remove moulds and trims from around damaged glass
- remove damaged windscreens and side and rear glass, and replace these according to the vehicle manufacturer's specifications
- install glass that has either been pre-cut and shaped or cut with a template using flat laminated glass

- repair or replace damaged glass frames, moulds, window winding mechanisms and door handles.

The work may be carried out in a workshop or in a mobile service unit. Some companies specialise in sunroof conversions and car window insulation (tinting).

### Personal Requirements

- enjoy practical and manual work
- good customer relations skills
- no allergies to chemicals, kerosene or sealants
- interested in motor vehicles
- good at mechanical activities.

### Education and Training

You can work as a windscreen fitter without formal qualifications. You will probably get some informal training on the job.

You can also become a windscreen fitter through a traineeship in Automotive Vehicle Body. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Additional Information

A drivers licence is usually required.

Once you are employed, you may be able to develop, and have recognised, additional skills under the Automotive Retail, Service and Repair Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

### Employment Opportunities

Windscreen fitters work for windscreen or auto glass repair and replacement specialists. Some companies also sell other automotive products or mechanical services.

### For Further Information

- Automotive Training Victoria ☎ (03) 9866 1294  
✉ [manager@atv.org.au](mailto:manager@atv.org.au) ✓ [www.atv.org.au](http://www.atv.org.au)
- Victorian Automobile Chamber of Commerce ☎ (03) 9829 1111  
✉ [vacc@vacc.com.au](mailto:vacc@vacc.com.au) ✓ [www.vacc.com.au](http://www.vacc.com.au)

### Related Jobs

Exhaust Fitter and Repairer (p 170); Light Vehicle Motor Mechanic (p 250); Panel Beater (p 307); Radiator Repairer (p 344); Service Station Attendant (p 366); Tyre Fitter and Repairer (p 421); Vehicle Body Builder (p 425); Vehicle Serviceperson (p 427).

## Winemaker

Also known as Oenologist.

Winemakers plan, supervise and coordinate the production of wine or spirits from selected varieties of grapes.

Winemakers may perform the following tasks:

- liaise with viticulturalists who manage planting programs and the cultivation and production of grapes
- conduct various laboratory tests to monitor the progress of grapes to ensure their quality and to determine the correct time for harvest
- organise the crushing and pressing of grapes, the settling of juice and the fermentation of grape material
- direct the filtering of wine to remove remaining solids
- conduct laboratory tests and monitor quality of wine
- place filtered wine in casks or tanks for storage and maturation
- prepare plans for bottling wine once it has matured and make sure that quality is maintained when the wine is bottled



- supervise cellar personnel involved in the production of wine
- supervise the maintenance of the vineyard and winery during the off-season
- liaise with sales and marketing staff to make sure the type, style and quality of wines produced will meet market demands
- organise and supervise local and export wine sales
- conduct technical in-service training for cellar staff
- give guided tours, conduct tastings and advise visitors about various aspects of wine.

Scientific knowledge is playing an increasingly important role in winemaking and some winemakers specialise in the research and development of wine.

Winemakers working in large wineries are in charge of the technical side of the business. Those working in small wineries may be responsible for the whole winemaking process, from the growing of the grapes to the bottling and marketing of the finished wine.

#### Personal Requirements

- excellent sense of smell and taste
- able to analyse and solve problems
- able to make accurate observations
- good communication skills
- good interpersonal skills.

#### Education and Training

To become a winemaker you usually have to study wine science, oenology or viticulture at university. To get into the course below you usually need to gain your VCE. Prerequisite subjects, or assumed knowledge, in one or more of English and mathematics are normally required. Contact the institution for more information as requirements may change.

#### Degree Courses

*Northern Melbourne Institute of TAFE - Epping Campus:*

Bachelor of Viticulture and Winemaking, 3 years full time

#### Additional Information

Graduates are eligible to join the Australian Society of Viticulture and Oenology and state wine industry associations.

#### Employment Opportunities

The majority of positions for winemakers are in NSW, SA and Victoria, although there are also employment opportunities in WA. You can gain experience by obtaining temporary or seasonal positions in a variety of winemaking regions and countries.

Winemakers with considerable experience can work as consultants to different wineries, although the majority of wineries prefer to have their own winemaker.

Wineries vary in size from small operations (perhaps family-owned) to large companies employing many people. Winemakers may be involved in all aspects of winemaking. They may also specialise in a particular area, depending on the size and type of winery.

#### For Further Information

- Australian Wine and Brandy Corporation ☎ (08) 8228 2000  
🌐 [www.wineaustralia.com](http://www.wineaustralia.com)
- National Wine Centre of Australia ☎ (08) 8303 3355  
✉ [nwc.info@adelaide.edu.au](mailto:nwc.info@adelaide.edu.au) 🌐 [www.wineaustralia.com.au](http://www.wineaustralia.com.au)
- Winemakers' Federation of Australia 🌐 [www.wfa.org.au](http://www.wfa.org.au)
- Australian Society of Viticulture and Oenology  
✉ [admin@asvo.com.au](mailto:admin@asvo.com.au) 🌐 [www.asvo.com.au](http://www.asvo.com.au)

#### Related Jobs

Agricultural Scientist (p 57); Botanist (p 91); Environmental Scientist (p 169); Food Technologist (p 189); Viticulturalist (p 430); Winery Worker (p 438).

## Winery Worker

Also known as Bottling Attendant, Cellarhand and Vineyard Hand.

Winery workers are involved in growing grapes and making, bottling, warehousing, packaging, distributing and selling wine.

Winery workers may perform the following tasks:

- prepare soil, plant vines, and cultivate and fertilise crops
- construct wire trellises to support vines and fruit
- control weeds, diseases and pests
- assist with grape picking and, after harvest, vine pruning
- operate equipment to crush and ferment the grapes
- assist in bottle fermentation by twining (turning the bottles) and re-topping during the process (for sparkling wines)
- operate equipment to clarify and filter wine
- make additions to wine, and blend and transfer wine during maturation
- prepare wine for bottling
- assist with barrel work and racking
- assist with bottling, corking and general cleaning
- operate cellar door, including sales and administration.

A winery worker may be involved in all aspects of vineyard and cellar work or may specialise in one or more areas, such as cellar work, bottling, laboratory work, vineyard work, warehousing and packing, or cellar sales, depending on the size and type of winery.

#### Specialisation

**Winery Supervisor** - provides on-the-job training to lower-level employees. Duties may include supervising process operations and coordinating the activities of workers; collecting, analysing and presenting statistical data; and carrying out environmental management programs including food safety and occupational health and safety procedures.

#### Personal Requirements

- enjoy practical activities
- able to undertake manual work
- able to work quickly and reliably
- good with numbers
- good oral and written communication skills
- be safety conscious.

#### Education and Training

You can work as a winery worker without formal qualifications. You will probably get some informal training on the job.

You can also become a winery worker through a traineeship in Food Processing (Wine). Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Food Processing Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

If you are over 18 years of age, you can undertake training to obtain a forklift operator or boiler attendant certificate, which may improve your employment prospects. See the Forklift Operator and Boiler Attendant entries for more details.

#### Employment Opportunities

Most employment is in NSW, SA, Victoria and WA. Wineries vary in size from small operations (perhaps family-owned) to large companies employing many people.



Most positions for winery workers are seasonal and on a casual basis, with the strongest demand over the pruning and harvesting periods in the abovementioned states. Formal training will enhance your long-term career prospects.

Employment for cellar door attendants is linked to the wine tourism industry.

#### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Winemakers' Federation of Australia 🌐 [www.wfa.org.au](http://www.wfa.org.au)
- Australian Society of Viticulture and Oenology  
✉ [admin@asvo.com.au](mailto:admin@asvo.com.au) 🌐 [www.asvo.com.au](http://www.asvo.com.au)

#### Related Jobs

Brewery Worker (p 93); Fruit and Vegetable Picker (p 195); Viticulturalist (p 430); Winemaker (p 437).

## Wood Machinist

Also known as Machine Woodworker, Wood Tradesperson and Wood Turner.

Wood machinists set up, operate and maintain woodworking machines, which they use to cut, plane, shape and sand wood to a required shape and size.

Crafted wood parts are then assembled to make a variety of furniture items and building components, such as tables, desks, chairs, beds, cabinets, boxes, window frames, veranda posts, balusters and flag poles.

Wood machinists may perform the following tasks:

- look at drawings, work orders or sample parts in order to work out the requirements of the job
- select and fit knives, saws, drill bits or cutter heads on machines and balance the cutter heads
- attach guides and other fittings to machines with clamps or bolts
- adjust stops, guides, rollers and the angle and height of the table
- lay out cutting lines according to drawings and place chisels against rotating work pieces to cut shapes
- feed wood and timber-based boards into machines or operate automatic feed mechanisms
- program and control Computer-Aided Design (CAD) and Computer Numerical Control (CNC) machines
- adjust parts to make sure that the work meets with requirements
- check work to ensure accuracy by using measuring instruments such as calipers or dividers
- clean machines and work areas.

Wood machinists usually work in large workshops in regional centres, in businesses ranging from sawmills and furniture makers to large processing and manufacturing plants. The work can sometimes be physically demanding. However, working conditions have improved with the introduction of new technology and specialist equipment.

#### Personal Requirements

- enjoy practical and manual work
- good eyesight (may be corrected)
- good hand-eye coordination
- physically fit
- able to carry out mathematical calculations
- not allergic to dust
- alert and safety conscious.

#### Education and Training

To become a wood machinist you usually have to complete an apprenticeship in Furniture Making (Wood Machining) or Woodmachining. Entry requirements may vary, but employers generally require Year 10.

Training is usually both on and off the job. The off-the-job training is provided through Registered Training Organisations, including TAFE. For more details on apprenticeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

#### Employment Opportunities

Wood machinists work for saw manufacturers, saw service shops, machining shops, woodworking factories, large timber mills and other industries which use sawing equipment.

#### For Further Information

- Australian Industry Group 🌐 [www.zoomplus.aigroup.asn.au](http://www.zoomplus.aigroup.asn.au)
- Manufacturing Skills Australia 🌐 [www.makeit.net.au](http://www.makeit.net.au)
- Furnishing Industry (VIC/TAS) Inc ☎ (03) 9856 1600  
✉ [reception@fiaavictas.org.au](mailto:reception@fiaavictas.org.au) 🌐 [www.fiaavictas.org.au](http://www.fiaavictas.org.au)

#### Related Jobs

Cabinetmaker (p 99); Carpenter (p 105); Cooper (p 131); Craftsperson (p 135); Furniture Polisher (p 196); Joiner (p 238); Machine Operator (Non-metal products) (p 252); Saw Doctor (p 361); Upholsterer (p 422).

## Wool Classer

Wool classers sort, classify and grade wool into various types so that it can be sold at the best market price. They also manage or supervise wool-handling teams.

Wool classers may perform the following tasks:

- classify wool according to various characteristics (i.e. length, colour, evenness, burr content, strength and quality)
- make sure that the wool is prepared to industry agreed standards
- advise on sheep classing and selection
- instruct and supervise workers involved in wool handling
- instruct wool pressers and supervise the pressing, weighing and branding of bales of wool
- maintain and supervise records of wool characteristics
- refer to laboratory test results of mobs or lines of wool
- liaise with woolbrokers and advisory institutions
- implement quality management systems
- prepare documents that describe wool qualities.

A wool classer may act as the shearing overseer depending on the number of shearing stands in operation. This involves account keeping, administration of the shearing team and the maintenance of mechanical shearing equipment.

Wool classers work in shearing sheds and wool handling centres. They mostly work indoors and stand for long periods. Wool classers may need to travel long distances from property to property to work during the shearing season.

#### Specialisation

**Wool Valuer** - assesses the value of wool on behalf of wool buyers, brokers and domestic and overseas woollen mills.

#### Personal Requirements

- physically fit
- good with hands
- normal eyesight (may be corrected)
- good communication skills



- willing to travel
- able to work as part of a team.

### Education and Training

To become a wool classer you usually have to complete a Certificate IV in Wool Classing. Entry to the certificate courses below usually requires at least Year 10 and completion of the previous level certificate. As subjects can vary between institutions, you should contact your chosen institution for full details.

You can also become a wool classer through a traineeship in Wool Classing. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**Murray Mallee Training Company Ltd - Swan Hill:**

Certificate IV in Wool Classing

**Rural Industries Skill Training Centre Inc - Hamilton:**

Certificate IV in Wool Classing (entry via Certificate II in Wool Handling plus Certificate III in Wool Clip Preparation)

**TAFE Victoria - various locations:**

Certificate IV in Wool Classing (entry via Certificate III in Wool Clip Preparation)

### Additional Information

Graduates are eligible to apply for registration with the Australian Wool Exchange to hold an Australian Wool Classers Stencil (allowing the identification of wool for sale and export).

### Employment Opportunities

Wool classers are employed by stock and station agents, shearing contractors, woollen mills, growers, stores and brokers and private wool merchants. Wool classing is a seasonal occupation, with most classers being employed during the shearing season. They may also become self-employed. Wool classers should be prepared to move around the country to find work. They will need to be registered with the Australian Wool Exchange.

### For Further Information

- AgriFood Skills Australia ☎ (02) 6163 7200  
✉ [reception@agrifoodskills.net.au](mailto:reception@agrifoodskills.net.au)  
🌐 <http://agrifoodskills.net.au>
- Australian Wool Exchange ☎ (02) 9428 6100  
✉ [info@awex.com.au](mailto:info@awex.com.au) 🌐 [www.awex.com.au](http://www.awex.com.au)
- Rural Skills Australia 🌐 [www.ruralskills.com.au](http://www.ruralskills.com.au)
- Wool Industry Training Australia Pty Ltd (National Office)  
☎ (02) 6882 8137 ✉ [brad.draper@staffrecruitment.com.au](mailto:brad.draper@staffrecruitment.com.au)

### Related Jobs

Farm Hand (p 171); Farmer/Farm Manager (p 172); Jackaroo (p 236); Shearer (p 367); Shearing Shed Hand (p 368); Stock and Station Agent (p 384).

## Word Processing Operator

Also known as Data Entry Clerk.

Word processing operators type, edit and print documents, using computers with word processing software applications and printers.

Word processing operators may perform the following tasks:

- plan and set out the format required, such as page length and width, line spacing and style of typeface, for letters, business forms and other documents

- type and re-arrange information, such as highlighting parts of the text, moving paragraphs from one page to another and putting information into columns
- transfer data from audio tapes into letters and reports
- set up mail merge functions to enable multiple letters to be personalised or directed to individuals in a number of locations
- make alterations to information already stored on a computer
- print out letters, address labels and other documents
- perform clerical duties, such as filing, answering the phone and despatching mail
- perform switchboard or reception duties.

In some offices, operators spend all or most of their time doing word processing work. They may work alone or in a group with other operators. It is standard practice for operators to take regular rest breaks in order to minimise the occurrence of repetitive strain injury (RSI) to their arms and hands.

With experience, and sometimes further training, operators may have the opportunity to move into higher level positions such as personal assistant, word processing coordinator or supervisor in larger organisations, or into other areas of administration or management.

### Specialisation

**Data Processing Operator** - uses computer terminals to transfer information into a database for storage, processing and transmission. They may input information in prescribed formats such as payrolls, staff records or scientific software programs, and retrieve, confirm and update data in storage. They work in almost all industry sectors, including government, manufacturing, education, retailing, banking and finance.

### Personal Requirements

- good command of the English language, particularly spelling
- good oral and written communication skills
- good concentration
- organisational skills
- able to work independently
- aptitude for working with computers.

### Education and Training

You can work as a word processing operator without formal qualifications. You will probably get some informal training on the job. However, there are a number of courses available that may assist you in gaining employment.

Entry to the certificate courses below usually requires at least Year 10. As subjects can vary, you should contact the institution for full details.

You may be able to study through distance education. See the Learning Pathways section for more information.

You can also become a word processing operator through a traineeship in Business or Business Administration. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section. Ask your career adviser about the possibility of starting some of this training in school.

### Certificate Courses

**TAFE Victoria - various locations:**

Certificate I in Business

Certificate II in Business (entry via Certificate I in Business)

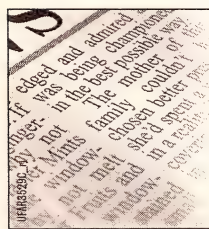
Certificate II in Information Technology

Certificate III in Business (entry via Certificate II in Business)

Certificate III in Business Administration (entry via Certificate II in Business)

Certificate III in Information Technology (entry via Certificate II in Information Technology)







New technologies have increased the expectation that writers will have multimedia skills and will work on personal computers, submitting their work electronically. Therefore, it is strongly advised that you have basic computer skills.

#### For Further Information

- Australian Society of Authors (National) ☎ (02) 9318 0877  
✉ asa@asauthors.org 🌐 www.asauthors.org
- Australian Society for Technical Communication (Victorian Chapter) ☎ 0412 500 519 (mobile call charges apply)  
✉ admin@astcvc.org.au 🌐 www.astcvc.org.au
- Victorian Writers' Centre ☎ (03) 9094 7855 ✉ info@wvc.org.au  
🌐 http://wvc.org.au

#### Related Jobs

Copywriter (p 131); Editor (p 155); Illustrator (p 221); Journalist (p 239); Publisher (p 342); University Lecturer (p 422).

## Y

### Youth Worker

Youth workers work with and support young people, either individually or in groups, to deal with social, emotional or financial problems.

Youth workers may perform the following tasks:

- interview young people to identify problems and act as advocates (representatives) for them, raising these issues with relevant government authorities
- advocate for young people who have a grievance with government departments or other organisations
- assist in developing policies relating to young people
- provide support and advice to young people experiencing difficulties, such as family problems, unemployment, illness, drug abuse and homelessness
- arrange and provide counselling and/or food, shelter or clothing
- assess risks and provide intensive short-term crisis counselling for victims of domestic violence or child abuse
- arrange for the referral of clients to appropriate specialists or community agencies
- provide information about community services and resources available for young people
- plan, conduct and evaluate programs for young people in areas such as employment and training, education, self-development, accommodation, welfare and counselling
- plan and organise activities including sports, handicrafts, dancing, drama, hiking, bushwalking and holiday camps
- establish and supervise youth clubs and small neighbourhood support groups in the local community
- write reports and submissions requesting funding for continuing programs and new projects
- evaluate data about the effectiveness of community support services
- work closely with teachers, social and welfare workers, local authorities, health professionals, refuge workers, parents and, in some instances, the police.

Youth workers work in a variety of settings including schools, hospitals, corrective institutions, youth refuge and community centres, and in Scouting, Guides, YWCA, YMCA and other organisations. They also work in places where young people congregate, including shopping centres, parks and reserves. Youth workers often work unsupervised and much of their work takes place outside normal hours.

#### Specialisations

**Family Support Worker** - works with families experiencing financial, relationship or other difficulties. They offer practical help, emotional support and advice on coping strategies, so as to allow children to stay with their families rather than be placed under the care of the state.

**Accommodation Worker** - assist young people living in supported accommodation environments, including crisis services, hostels, shared housing and independent accommodation.

**Drug and Alcohol Worker** - provide support to young people looking to decrease or stop using drugs and alcohol when it becomes a problem for them. They may work in rehabilitation centres, counselling services, health services or in other community settings.

**Detached (Street Based) Youth Worker** - builds working relationships with young people in public spaces such as parks, shopping centres, or on the streets. Young people are then provided with information and support to meet their needs.

#### Personal Requirements

- initiative and leadership qualities
- good interpersonal and communication skills
- able to work independently
- a non-judgmental attitude
- able to plan and organise.

#### Education and Training

To become a youth worker you usually have to complete a qualification in youth work or youth justice. Entry to certificate courses usually requires Year 12, sometimes with relevant work experience. To get into diploma courses you usually have to complete a Certificate IV in Youth Work. To get into degree courses you usually need to gain your VCE with English. The various institutions have different prerequisites and some have flexible entry requirements. Contact the institutions you are interested in for more information as requirements may change.

Relevant courses are widely available at universities, TAFE institutes and other Registered Training Organisations in Victoria. In addition, other relevant degree courses in community services work, social science, counselling or a related field are available at universities. See the entries for Community Worker, Social Worker and Welfare Worker for relevant courses.

You can also become a youth worker through a traineeship in Youth Work or Youth Justice. Entry requirements may vary, but employers generally require Year 10. For more details on traineeships, see the Australian Apprenticeships section.

#### Additional Information

Once you are employed, you may be able to develop, and have recognised, additional skills under the Community Services Training Package that will expand your career opportunities within this industry. See the Learning Pathways section for more information.

Introductory training is available as a volunteer through Scouts, Guides, church groups and special welfare programs (e.g. Youthlink, Lifeline or YMCA/YWCA). In addition, some employing agencies offer in-service training for new employees in areas such as street work, counselling, group work and information services.

To work with minors in Victoria, you must obtain a Working with Children Check issued by the Department of Justice.

#### Employment Opportunities

Youth workers are employed mainly in social welfare organisations and government departments that provide community services.



There is considerable demand for this occupation, although employment opportunities and job security are often dependent on government funding.

#### For Further Information

- Australian Youth Affairs Coalition ☎ (02) 9212 0500  
✉ admin@ayac.org.au 🌐 www.ayac.org.au/
- Community Services and Health Industry Skills Council Ltd  
🌐 www.careerthatmatter.com.au

#### Related Jobs

Aboriginal/Torres Strait Islander Health Worker (p 47); Art Therapist (p 75); Child Care Coordinator (p 112); Child Care Worker (p 113); Community Worker (p 122); Counsellor (p 133); Disability Services Instructor (p 148); House Parent (p 219); Nanny (p 286); Psychologist (p 337); Religious Leader (p 353); Social Worker (p 373); Teacher - Secondary (p 397); Welfare Worker (p 436).

## Study Youth

[www.tabor.vic.edu.au](http://www.tabor.vic.edu.au)

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# Z

## Zoologist

Zoologists are biologists who study the structures, characteristics, functions, ecology and environments of animals to increase scientific knowledge and develop practical applications in wildlife management, conservation, agriculture and medicine.

Zoologists may perform the following tasks:

- investigate the inter-relationships between animals and their environment by studying animals in their natural surroundings, in captivity and in laboratories
- study and perform experiments to identify species and gather data on growth, nutrition, reproduction, prey and predators
- study the development and functions of animals
- devise methods of population control, especially of vermin and pests
- develop programs to increase or manage the population of wild animals and animals in captivity
- undertake surveys of fauna and prepare reports for management agencies
- prepare or supervise the preparation of laboratory reports and scientific papers
- supervise and coordinate the work of technical officers and technicians
- lecture at universities and TAFE institutes
- participate in wildlife awareness programs for the public.

Zoologists usually specialise in one aspect of study such as entomology (insects), parasitology (internal and external parasites), ecology (environment of animals), ethology (animal behaviour), ichthyology (fish), mammalogy (mammals), ornithology (birds), herpetology (reptiles) or physiology (functions of animals).

#### Personal Requirements

- a keen interest in research and the study of living organisms
- good observation skills
- able to work accurately
- a logical approach to problem solving
- good oral and written communication skills
- able to work independently or as part of a team.

#### Education and Training

To become a zoologist you usually have to study science or applied science at university with a major in zoology or biological sciences. Postgraduate qualifications may enhance employment prospects in the field of zoology.

To get into these courses you usually need to gain your VCE. The various universities have different prerequisites and some have flexible entry requirements. Contact the universities you are interested in for more information as requirements may change.

Courses are also available via distance education. See the Open Universities Australia website ([www.open.edu.au](http://www.open.edu.au)) or contact the institutions you are interested in for more information.

Relevant degree courses are widely available at most universities in Victoria. Check institution handbooks for full details.

#### Employment Opportunities

Opportunities for employment are varied. Some zoology graduates work as laboratory or research assistants in applied, biomedical and pure research projects. Zoologists with higher-degree qualifications may be employed in teaching and research in universities and colleges, or in pure and applied research in CSIRO entomology, marine and wildlife divisions. They may also be employed by state museums, zoos, state departments of agriculture, and organisations concerned with conservation, wildlife management, environmental control, fisheries and national parks. In addition, there are positions in the animal breeding and genetics industry. Some zoology graduates obtain a postgraduate qualification in education and teach science in secondary schools.

Employment prospects for zoologists depend upon the amount of biological and agricultural research conducted by government agencies, universities and other organisations, and the funding allocated to it.

#### For Further Information

- Department of Zoology, University of Melbourne  
☎ (03) 8344 6244 🌐 [www.zoology.unimelb.edu.au](http://www.zoology.unimelb.edu.au)
- Human Resources, Zoos Victoria ☎ (03) 9285 9366  
✉ [employment@zoo.org.au](mailto:employment@zoo.org.au) 🌐 [www.zoo.org.au/hr](http://www.zoo.org.au/hr)

#### Related Jobs

Agricultural Scientist (p 57); Animal Attendant (p 66); Animal Technician (p 67); Biotechnologist (p 89); Environmental Scientist (p 169); Forester (p 194); Marine Biologist (p 254); Microbiologist (p 274); Pharmacologist (p 316); Toxicologist (p 410); Veterinarian (p 428).



# Useful addresses

## TAFE

☎ 13 18 23 (TAFE Course Line)

*Bendigo Regional Institute of TAFE*

PO Box 170 Bendigo VIC 3550 ☎ 1300 554 248

🌐 [www.britafe.vic.edu.au](http://www.britafe.vic.edu.au)

### **Charleston Road Campus**

Charleston Rd Bendigo VIC 3550 ☎ 1300 554 248

### **Castlemaine Campus**

65-67 Templeton St Castlemaine VIC 3450 ☎ 1300 554 248

### **Echuca Campus**

Cnr Hare and Darling Sts Echuca VIC 3564 ☎ 1300 554 248

### **Kyneton Campus**

73-79 Edgecombe St Kyneton VIC 3444 ☎ 1300 554 248

*Box Hill Institute of TAFE*

Private Bag 2014 Box Hill VIC 3128 ☎ 1300 269 445 (FREECALL)

🌐 [www.bhtafe.edu.au](http://www.bhtafe.edu.au)

### **Ceylon Campus**

32 Ceylon St Nunawading VIC 3128 ☎ 1300 269 445 (FREECALL)

### **Elgar Campus**

465 Elgar Rd Box Hill VIC 3128 ☎ 1300 269 445 (FREECALL)

### **Nelson Campus**

853 Whitehorse Rd Box Hill VIC 3128 ☎ 1300 269 445 (FREECALL)

### **Whitehorse Campus**

1000 Whitehorse Rd Box Hill VIC 3128 ☎ 1300 269 445 (FREECALL)

*Chisholm Institute of TAFE*

PO Box 684 Dandenong VIC 3175 ☎ 1300 244 746

🌐 [www.chisholm.edu.au](http://www.chisholm.edu.au)

### **Bass Coast Campus**

Cnr Bass Hwy and South Dudley Rd Wonthaggi VIC 3995  
☎ (03) 5671 2300

### **Berwick Campus**

25 Kangan Dr Berwick VIC 3806 ☎ (03) 9212 5000

### **Cranbourne Campus**

New Holland Dr Cranbourne VIC 3977 ☎ (03) 9212 5000

### **Dandenong Campus**

121 Stud Rd Dandenong VIC 3175 ☎ (03) 9212 5000

### **Frankston Campus**

Fletcher Rd Frankston VIC 3199 ☎ (03) 9212 5000

### **Mornington Peninsula Campus**

Boneo Rd Rosebud VIC 3939 ☎ (03) 5950 2000

*East Gippsland Institute of TAFE*

PO Box 886 Bairnsdale VIC 3875 ☎ 1300 133 717

🌐 [www.egtafe.vic.edu.au](http://www.egtafe.vic.edu.au)

### **Bairnsdale Campus**

48 Main St Bairnsdale VIC 3875 ☎ (03) 5152 0700

### **Flexible Learning Centre**

48 Main St Bairnsdale VIC 3875 ☎ (03) 5150 4218

### **Forestech**

Princes Hwy Lakes Entrance Kalimna West VIC 3909  
☎ (03) 5155 6800

### **Sale Campus - Farmtech**

Drome Rd Sale VIC 3850 ☎ (03) 5144 7321

### **Sale Campus - Fulham**

Princes Hwy Fulham VIC 3850 ☎ (03) 5142 2400

### **South East Australia Maritime Education Centre (SEAMEC)**

Bullock Island Rd Bullock Island Lakes Entrance VIC 3909

☎ (03) 5155 6500

*GippsTAFE*

PO Box 3279 GMC Morwell VIC 3841 ☎ (03) 5120 4500

🌐 [www.gippstafe.vic.edu.au](http://www.gippstafe.vic.edu.au)

### **Chadstone Campus - Energy Training Centre**

41 Drummond St Chadstone VIC 3148 ☎ (03) 9251 3000

### **GETT Centre (Gipps TAFE Employment & Transitional Training Centre)**

Buckley St Morwell VIC 3840 ☎ (03) 5134 6377

### **Leongatha Campus**

Nerrena Rd Leongatha VIC 3953 ☎ (03) 5662 6800

### **Morwell Campus**

Cnr Princes Dr and Monash Way Morwell VIC 3841

☎ (03) 5120 4500

### **Warragul Campus**

116-118 Queen St Warragul VIC 3820 ☎ (03) 5622 8500

### **Yallourn Campus**

Monash Rd Newborough VIC 3825 ☎ (03) 5217 0277

*Gordon Institute of TAFE*

Private Bag 1 Geelong MC VIC 3221 ☎ (03) 5225 0500

🌐 [www.gordontafe.edu.au](http://www.gordontafe.edu.au)

### **City Campus**

2 Fenwick St Geelong VIC 3220 ☎ (03) 5225 0500

### **Colac Campus**

142 Hearn St Colac VIC 3250 ☎ (03) 5232 1596

### **East Geelong Campus**

Boundary Rd East Geelong VIC 3219 ☎ (03) 5225 0600

### **Corrections Education Centre Campus**

HM Prison Barwon Bacchus Marsh Rd Lara VIC 3212  
☎ (03) 5220 8223

*Goulburn Ovens Institute of TAFE*

152-200 Fryers St Shepparton VIC 3630 ☎ 1300 468 233

🌐 [www.gotafe.vic.edu.au](http://www.gotafe.vic.edu.au)

### **Benalla Campus**

57 Samaria Rd Benalla VIC 3672 ☎ 1300 468 233

### **Docker Street Campus**

Docker St Wangaratta VIC 3677 ☎ 1300 468 233

### **Fryers Street Campus**

152-200 Fryers St Shepparton VIC 3630 ☎ 1300 468 233

### **NCDEA Terang Campus**

Princes Hwy Terang VIC 3264 ☎ 1300 062 332

### **NCDEA Warragul Campus**

183 Queen St Warragul VIC 3820 ☎ 1300 062 332

### **NCDEA Werribee Campus**

3 Research Ct Werribee VIC 3030 ☎ 1300 062 332

### **Rural Industries Campus Wangaratta**

Tone Rd Wangaratta VIC 3677 ☎ 1300 468 233

### **Seymour Campus**

Wallis St Seymour VIC 3660 ☎ 1300 468 233

### **William Orr Campus**

Wanganui Rd Shepparton VIC 3630 ☎ 1300 468 233

*Holmesglen Institute of TAFE*

PO Box 42 Holmesglen VIC 3148 ☎ (03) 9564 1555

✉ [info@holmesglen.vic.edu.au](mailto:info@holmesglen.vic.edu.au)

🌐 [www.holmesglen.edu.au](http://www.holmesglen.edu.au)



**Chadstone Campus**

Cnr Batesford and Warrigul Rds Chadstone VIC 3148

☎ (03) 9564 1555

**Moorabbin Campus**

488 South Rd Moorabbin VIC 3189 ☎ (03) 9564 1555

**Waverley Campus**

585 Waverley Rd Glen Waverley VIC 3150 ☎ (03) 9564 1555

Kangan Batman Institute of TAFE

Private Bag 299 Somerton VIC 3062 ☎ (03)-9279 2222

✉ [enquiries@kangan.edu.au](mailto:enquiries@kangan.edu.au)🌐 [www.kangan.edu.au](http://www.kangan.edu.au)**Automotive Centre for Excellence**

1 Batman's Hill Dr Docklands VIC 3008 ☎ 13 42 23

**Broadmeadows Campus**

Pearcedale Pde Broadmeadows VIC 3047 ☎ 13 82 33

**Coburg Campus**

Dawson St Coburg North VIC 3058 ☎ 13 82 33

**Craigieburn Flexible Learning Centre**

87-91 Grand Blvd Craigieburn VIC 3064 ☎ 13 82 33

**Essendon Campus**

38 Buckley St Essendon VIC 3040 ☎ 13 82 33

**Moreland Campus**

Cnr The Grove and De Carle St Coburg VIC 3058 ☎ 13 82 33

**Richmond Campus**

70 Gwynne St and 85 Cremorne St Richmond VIC 3121 ☎ 13 82 33

Northern Melbourne Institute of TAFE

77-91 St Georges Rd Preston VIC 3072 ☎ 13 66 48

✉ [info@nmit.vic.edu.au](mailto:info@nmit.vic.edu.au)🌐 [www.nmit.edu.au](http://www.nmit.edu.au)**Ararat Campus**

Grano St Ararat VIC 3377 ☎ 13 66 48

**Collingwood Campus**

20 Otter St Collingwood VIC 3066 ☎ 13 66 48

**Epping Campus**

Cnr Cooper St and Dalton Rd Epping VIC 3076 ☎ 13 66 48

**Fairfield Campus**

Yarra Bend Rd Fairfield VIC 3078 ☎ 13 66 48

**Greensborough Campus**

Civic Dr Greensborough VIC 3088 ☎ 13 66 48

**Heidelberg Campus**

Cnr Waterdale Rd and Bell St Heidelberg VIC 3081 ☎ 13 66 48

**Northern AMEP Centre**

Cnr Belfast and Blair Sts Broadmeadows VIC 3047 ☎ 13 66 48

**Northern Lodge - Eden Park**

Glen Robin Crt Eden Park VIC 3757 ☎ 13 66 48

**Northern Lodge - Yan Yean**

2005 Plenty Rd Yan Yean VIC 3755 ☎ 13 66 48

**Preston Campus**

77-91 St Georges Rd Preston VIC 3072 ☎ 13 66 48

RMIT University

GPO Box 2476 Melbourne VIC 3001 ☎ (03) 9925 2000

🌐 [www.rmit.edu.au](http://www.rmit.edu.au)**RMIT University Brunswick Campus**

25 Dawson St Brunswick VIC 3056 ☎ (03) 9925 9111

**RMIT University Bundoora Campus**

Plenty Rd Bundoora VIC 3083 ☎ (03) 9925 2000

**RMIT University City Campus**

124 La Trobe St Melbourne VIC 3000 ☎ (03) 9925 2000

**RMIT University Point Cook**

RAAF Williams Base VIC 3030 ☎ (03) 9394 9999

**RMIT Hamilton Campus**

200 Ballarat Rd Hamilton VIC 3300 ☎ (03) 5572 0500

South West Institute of TAFE

PO Box 674 Warrnambool VIC 3280 ☎ (03) 5564 8911

✉ [info@swtafe.vic.edu.au](mailto:info@swtafe.vic.edu.au)🌐 [www.swtafe.vic.edu.au](http://www.swtafe.vic.edu.au)**Glenormiston Campus**

Glenormiston Rd Glenormiston South VIC 3265 ☎ (03) 5564 8911

✉ [glenormiston@swtafe.vic.edu.au](mailto:glenormiston@swtafe.vic.edu.au)**Hamilton Campus**

39 Hammond St Hamilton VIC 3300 ☎ (03) 5551 4144

✉ [hamiltoninfo@swtafe.vic.edu.au](mailto:hamiltoninfo@swtafe.vic.edu.au)**Portland Campus**

154 Hurd St Portland VIC 3305 ☎ (03) 5521 0444

✉ [portland@swtafe.vic.edu.au](mailto:portland@swtafe.vic.edu.au)**Sherwood Park Campus**

Princes Hwy Warrnambool VIC 3280 ☎ (03) 5564 8799

✉ [sherwood@swtafe.vic.edu.au](mailto:sherwood@swtafe.vic.edu.au)**Warrnambool Campus**

Timor St Warrnambool VIC 3280 ☎ (03) 5564 8911

✉ [warrnambool@swtafe.vic.edu.au](mailto:warrnambool@swtafe.vic.edu.au)

Sunraysia Institute of TAFE

PO Box 1904 Mildura VIC 3502 ☎ (03) 5022 3666

✉ [switch@sunitafe.edu.au](mailto:switch@sunitafe.edu.au)🌐 [www.sunitafe.edu.au](http://www.sunitafe.edu.au)**Mallee Campus**

46 Oke St Ouyen VIC 3490 ☎ (03) 5091 0420

✉ [mallee@sunitafe.edu.au](mailto:mallee@sunitafe.edu.au)**Mildura Campus**

453 Benetook Ave Mildura VIC 3502 ☎ (03) 5022 3666

✉ [mildura@sunitafe.edu.au](mailto:mildura@sunitafe.edu.au)**Robinvale Campus**

160 Bromley Rd Robinvale VIC 3549 ☎ (03) 5051 8300

✉ [robinvale@sunitafe.edu.au](mailto:robinvale@sunitafe.edu.au)**Swan Hill Campus**

64 Sea Lake-Swan Hill Rd Swan Hill VIC 3585 ☎ (03) 5036 0220

✉ [swanhill@sunitafe.edu.au](mailto:swanhill@sunitafe.edu.au)

Swinburne University of Technology

PO Box 218 Hawthorn VIC 3122 ☎ 1300 275 794

✉ [study@swinburne.edu.au](mailto:study@swinburne.edu.au)🌐 [www.swinburne.edu.au](http://www.swinburne.edu.au)**Croydon Campus**

12-50 Norton Rd Croydon VIC 3136 ☎ 1300 275 794

**Hawthorn Campus**

John St Hawthorn VIC 3122 ☎ 1300 275 794

**Healesville Campus**

237 Maroondah Hwy Healesville VIC 3777 ☎ 1300 275 794

**Lilydale, Pratt Campus**

Melba Ave Lilydale VIC 3140 ☎ 1300 275 794

**Prahran Campus**

144 High St Prahran VIC 3181 ☎ 1300 275 794

**Wantirna Campus**

369 Stud Rd Wantirna VIC 3152 ☎ 1300 275 794

University of Ballarat - TAFE Division

PO Box 668 Ballarat VIC 3353 ☎ 1300 225 527

✉ [info@ballarat.edu.au](mailto:info@ballarat.edu.au)🌐 [www.ballarat.edu.au](http://www.ballarat.edu.au)**Ararat Campus**

Laby St Ararat VIC 3377 ☎ (03) 5355 3000

**Ballarat Campus**

University Dr Mt Helen VIC 3350 ☎ (03) 5327 9000

**Camp Street Campus**

Camp St Ballarat VIC 3350 ☎ (03) 5327 8600



### Horsham Campus

Baillie St Horsham VIC 3400 ☎ (03) 5362 2600

### Stawell Campus

Sloane St Stawell VIC 3380 ☎ (03) 5358 7200

### Victoria University

PO Box 14428 Melbourne VIC 8001 ☎ (03) 9919 6100

☎ [www.vu.edu.au](http://www.vu.edu.au)

### City Flinders Campus

300 Flinders St Melbourne VIC 3000 ☎ (03) 9919 6100

### City Flinders Lane Campus

301 Flinders La Melbourne VIC 3000 ☎ (03) 9919 6100

### City King Street Campus

225 King St Melbourne VIC 3000 ☎ (03) 9919 6100

### City Queen Campus

295 and 283 Queen St Melbourne VIC 3000 ☎ (03) 9919 6100

### Footscray Nicholson Campus

Cnr Nicholson and Buckley Sts Footscray VIC 3011

☎ (03) 9919 6100

### Footscray Park Campus

Ballarat Rd Footscray VIC 3011 ☎ (03) 9919 6100

### Melton Campus

Rees Rd Melton South VIC 3338 ☎ (03) 9919 6100

### Newport Campus

80 Champion Rd Newport VIC 3015 ☎ (03) 9919 6100

### St Albans Campus

McKechnie St St Albans VIC 3021 ☎ (03) 9919 6100

### Sunbury Campus

The Avenue Sunbury VIC 3429 ☎ (03) 9919 6100

### Sunshine Campus

460 Ballarat Rd Sunshine VIC 3020 ☎ (03) 9919 6100

### Werribee Campus

Hoppers La Werribee VIC 3030 ☎ (03) 9919 6100

### William Angliss Institute of TAFE

555 La Trobe St Melbourne VIC 3000 ☎ (03) 9606 2111

☎ [info@angliss.edu.au](mailto:info@angliss.edu.au)

☎ [www.angliss.edu.au](http://www.angliss.edu.au)

### Wodonga Institute of TAFE

87 McKoy St Wodonga West VIC 3690 ☎ (02) 6055 6600

☎ [courseinfo@wodongatafe.edu.au](mailto:courseinfo@wodongatafe.edu.au)

☎ [www.wodongatafe.edu.au](http://www.wodongatafe.edu.au)

## Tertiary Admissions Centres

### New South Wales and Australian Capital Territory

#### University Admissions Centre (UAC)

Quad 2 Australia Centre 8 Parkview Dr Sydney Olympic Park NSW 2127 ☎ (02) 9752 0200

☎ [www.uac.edu.au](http://www.uac.edu.au)

### Northern Territory

Admissions for Higher Education are through the South Australian Tertiary Admissions Centre (SATAC). Application forms can be obtained from SATAC.

#### Charles Darwin University

Darwin NT 0909 ☎ (08) 8946 6666 or 1800 061 963 (FREECALL)

☎ [student.admin@cdu.edu.au](mailto:student.admin@cdu.edu.au)

☎ [www.cdu.edu.au](http://www.cdu.edu.au)

### Queensland

#### Queensland Tertiary Admissions Centre (QTAC)

Level 2, 33 Park Rd Milton QLD 4064 ☎ (07) 3858 1222 or 1300 467 822

☎ [www.qtac.edu.au](http://www.qtac.edu.au)

### South Australia

#### South Australian Tertiary Admissions Centre (SATAC)

Ground Floor 104 Frome St Adelaide SA 5000 ☎ (08) 8224 4000 or 1300 138 440 (local call cost for country and interstate)

☎ [www.satac.edu.au](http://www.satac.edu.au)

### Tasmania

There is no centralised admissions centre. Application forms must be obtained directly from the institution.

#### University of Tasmania (including the Australian Maritime College)

Private Bag 45 Hobart TAS 7001 ☎ (03) 6226 2999 or 1300 363 864

☎ [course.info@admin.utas.edu.au](mailto:course.info@admin.utas.edu.au)

☎ [www.utas.edu.au](http://www.utas.edu.au)

### Victoria

#### Victorian Tertiary Admissions Centre (VTAC)

40 Park St South Melbourne VIC 3205 ☎ (03) 9954 3220 or 1300 364 133 (Toll Free)

☎ [www.vtac.edu.au](http://www.vtac.edu.au)

### Western Australia

#### Tertiary Institutions Service Centre (TISC)

100 Royal St East Perth WA 6004 ☎ (08) 9318 8000

☎ [info@tisc.edu.au](mailto:info@tisc.edu.au)

☎ [www.tisc.edu.au](http://www.tisc.edu.au)

## Universities

### Australian Catholic University (ACU)

☎ [www.acu.edu.au](http://www.acu.edu.au)

#### Ballarat Campus (Aquinas)

1200 Mair St Ballarat VIC 3350 ☎ (03) 5336 5300

#### Melbourne Campus (St Patrick's)

115 Victoria Pde Fitzroy VIC 3065 ☎ (03) 9953 3000

### Deakin University

☎ 1800 334 733 (FREECALL) for course information

☎ [courseassist@deakin.edu.au](mailto:courseassist@deakin.edu.au)

☎ [www.deakin.edu.au](http://www.deakin.edu.au)

#### Geelong Campus at Waurin Ponds

Pigdons Rd Waurin Ponds Geelong VIC 3217 ☎ (03) 5227 2333

#### Geelong Waterfront Campus

1 Gheringhap St Geelong VIC 3217 ☎ (03) 5227 2333

#### Melbourne Campus at Burwood

221 Burwood Hwy Burwood VIC 3125 ☎ (03) 9244 6333

#### Warrnambool Campus

Sherwood Park Princes Hwy Warrnambool VIC 3280

☎ (03) 5563 3333

### La Trobe University

☎ 1300 135 045 (future students)

☎ [www.latrobe.edu.au](http://www.latrobe.edu.au)

#### Albury/Wodonga Campus

University Rd Wodonga VIC 3690 ☎ (02) 6024 9700

☎ [stud-admin.aw@latrobe.edu.au](mailto:stud-admin.aw@latrobe.edu.au)

☎ [www.latrobe.edu.au/aw](http://www.latrobe.edu.au/aw)

#### Beechworth Campus

Albert Rd Beechworth VIC 3747 ☎ (03) 5720 8000

#### Bendigo Campus

Edwards Rd Flora Hill Bendigo VIC 3550 ☎ (03) 5444 7222

☎ [www.latrobe.edu.au/bendigo](http://www.latrobe.edu.au/bendigo)

#### Melbourne Bundoora Campus

Plenty Rd Bundoora VIC 3086 ☎ (03) 9479 1111

☎ [www.latrobe.edu.au/melbourne](http://www.latrobe.edu.au/melbourne)



**Melbourne City Campus**

215 Franklin St Melbourne VIC 3000 ☎ (03) 9285 5100

✉ [citycampus@latrobe.edu.au](mailto:citycampus@latrobe.edu.au)🌐 [www.latrobe.edu.au/city](http://www.latrobe.edu.au/city)**Mildura Campus**

471 Benetook Ave Mildura VIC 3500 ☎ (03) 5051 4000

✉ [mildura@latrobe.edu.au](mailto:mildura@latrobe.edu.au)🌐 [www.latrobe.edu.au/mildura](http://www.latrobe.edu.au/mildura)**Shepparton Campus**

127 Welsford St Shepparton VIC 3630 ☎ (03) 5821 8450 or 1800 065 721 (FREECALL)

✉ [shepparton@latrobe.edu.au](mailto:shepparton@latrobe.edu.au)🌐 [www.latrobe.edu.au/shepparton](http://www.latrobe.edu.au/shepparton)**Monash University**

☎ (03) 9902 6000

✉ [future@monash.edu.au](mailto:future@monash.edu.au)🌐 [www.monash.edu.au](http://www.monash.edu.au)**Berwick Campus**

100 Clyde Rd Berwick VIC 3806 ☎ (03) 9904 7000

🌐 [www.berwick.monash.edu.au](http://www.berwick.monash.edu.au)**Caulfield Campus**

900 Dandenong Rd Caulfield East VIC 3145 ☎ (03) 9903 2000

🌐 [www.monash.edu.au/campuses/caulfield](http://www.monash.edu.au/campuses/caulfield)**Clayton Campus**

Wellington Rd Clayton VIC 3800 ☎ (03) 9905 4000

🌐 [www.monash.edu.au/campuses/clayton](http://www.monash.edu.au/campuses/clayton)**Gippsland Campus**

Northways Rd Churchill VIC 3842 ☎ (03) 9902 6987

✉ [giuseppe.marino@adm.monash.edu.au](mailto:giuseppe.marino@adm.monash.edu.au)🌐 [www.gippsland.monash.edu.au](http://www.gippsland.monash.edu.au)**Parkville Campus - Faculty of Pharmacy and Pharmaceutical Sciences**

381 Royal Pde Parkville VIC 3052 ☎ (03) 9903 9635

🌐 [www.pharm.monash.edu.au](http://www.pharm.monash.edu.au)**Peninsula Campus**

McMahons Rd Frankston VIC 3199 ☎ (03) 9904 4000

🌐 [www.monash.edu.au/campuses/peninsula](http://www.monash.edu.au/campuses/peninsula)**RMIT University**

GPO Box 2476 Melbourne VIC 3001 ☎ (03) 9925 2000

🌐 [www.rmit.edu.au](http://www.rmit.edu.au)**RMIT University Brunswick Campus**

25 Dawson St Brunswick VIC 3056 ☎ (03) 9925 9111

**RMIT University Bundoora Campus**

Plenty Rd Bundoora VIC 3083 ☎ (03) 9925 2000

**RMIT University City Campus**

124 La Trobe St Melbourne VIC 3000 ☎ (03) 9925 2000

**RMIT University Point Cook Campus**

RAAF Williams Base VIC 3030 ☎ (03) 9394 9999

**RMIT Hamilton Campus**

200 Ballarat Rd Hamilton VIC 3300 ☎ (03) 5572 0500

**Swinburne University of Technology**

PO Box 218 Hawthorn VIC 3122 ☎ 1300 275 794

✉ [study@swinburne.edu.au](mailto:study@swinburne.edu.au)🌐 [www.swinburne.edu.au](http://www.swinburne.edu.au)**Croydon Campus**

12-50 Norton Rd Croydon VIC 3136 ☎ 1300 275 794

**Hawthorn Campus**

John St Hawthorn VIC 3122 ☎ 1300 275 794

**Healesville Campus**

237 Maroondah Hwy Healesville VIC 3777 ☎ 1300 275 794

**Lilydale, Pratt Campus**

Melba Ave Lilydale VIC 3140 ☎ 1300 275 794

**Prahran Campus**

144 High St Prahran VIC 3181 ☎ 1300 275 794

**Wantirna Campus**

369 Stud Rd Wantirna VIC 3152 ☎ 1300 275 794

**University of Ballarat**

PO Box 668 Ballarat VIC 3353 ☎ 1300 225 527

✉ [info@ballarat.edu.au](mailto:info@ballarat.edu.au)🌐 [www.ballarat.edu.au](http://www.ballarat.edu.au)**Ararat Campus**

Laby St Ararat VIC 3377 ☎ (03) 5355 3000

**Ballarat Campus**

University Dr Mt Helen VIC 3350 ☎ (03) 5327 9000

**Camp Street Campus**

Camp St Ballarat VIC 3350 ☎ (03) 5327 8600

**Horsham Campus**

Baillie St Horsham VIC 3400 ☎ (03) 5362 2600

**SMB Campus**

Lydiard St South Ballarat VIC 3350 ☎ (03) 5327 8000

**Stawell Campus**

Sloane St Stawell VIC 3380 ☎ (03) 5358 7200

**University of Melbourne (The)****Information Centre**

☎ (03) 8344 6543 or 1800 801 662 (FREECALL)

🌐 [www.unimelb.edu.au](http://www.unimelb.edu.au)**Burnley Campus**

Yarra Blvd Richmond VIC 3121 ☎ (03) 9250 6800

**Creswick Campus - Melbourne School of Land and Environment**

Water St Creswick VIC 3363 ☎ (03) 5321 4150

**Dookie Campus**

Dookie College VIC 3647 ☎ (03) 5833 9200

**Parkville Campus**

☎ (03) 8344 4000 or 1800 801 662 (FREECALL)

**Shepparton Campus**

49 Graham St Shepparton VIC 3630 ☎ (03) 5823 4500

**Victorian College of the Arts**

234 St Kilda Rd Southbank VIC 3006 ☎ (03) 9685 9419

✉ [vcam-info@unimelb.edu.au](mailto:vcam-info@unimelb.edu.au)🌐 [www.vcam.unimelb.edu.au](http://www.vcam.unimelb.edu.au)**Werribee Campus**

250 Princess Hwy Werribee VIC 3030 ☎ (03) 9731 2000

**Victoria University**

PO Box 14428 Melbourne VIC 8001 ☎ (03) 9919 6100

🌐 [www.vu.edu.au](http://www.vu.edu.au)**City Flinders Campus**

300 Flinders St Melbourne VIC 3000 ☎ (03) 9919 6100

**City Flinders Lane Campus**

301 Flinders La Melbourne VIC 3000 ☎ (03) 9919 6100

**City King Street Campus**

225 King St Melbourne VIC 3000 ☎ (03) 9919 6100

**City Queen Campus**

295 and 283 Queen St Melbourne VIC 3000 ☎ (03) 9919 6100

**Footscray Nicholson Campus**

Cnr Nicholson and Buckley Sts Footscray VIC 3011

☎ (03) 9919 6100

**Footscray Park Campus**

Ballarat Rd Footscray VIC 3011 ☎ (03) 9919 6100

**Melton Campus**

Rees Rd Melton South VIC 3338 ☎ (03) 9919 6100

**Newport Campus**

80 Champion Rd Newport VIC 3015 ☎ (03) 9919 6100

**St Albans Campus**

McKechnie St St Albans VIC 3021 ☎ (03) 9919 6100



### Sunbury Campus

The Avenue Sunbury VIC 3429 ☎ (03) 9919 6100

### Sunshine Campus

460 Ballarat Rd Sunshine VIC 3020 ☎ (03) 9919 6100

### Werribee Campus

Hoppers La Werribee VIC 3030 ☎ (03) 9919 6100

### Defence Force Recruitment

For all general enquiries or requests for information brochures, or to book in to speak to a Career Adviser, call 13 19 01 (Toll Free). You can find further information on the website at [www.defencejobs.gov.au](http://www.defencejobs.gov.au) or visit a Defence Force Recruiting Centre.

### Victoria

Level 14, 501 Swanston St Melbourne VIC 3000

☎ 13 19 01 (Toll Free)

### National Industry Skills Councils

#### Agri-Food Industry Skills Council

PO Box 5450 Kingston ACT 2604 ☎ (02) 6163 7200

✉ [peter.clack@agrifoodskills.net.au](mailto:peter.clack@agrifoodskills.net.au)

🌐 [www.agrifoodskills.net.au](http://www.agrifoodskills.net.au)

#### Community Services and Health Industry Skills Council Ltd

PO Box 49 Strawberry Hills NSW 2012 ☎ (02) 9270 6600

✉ [admin@cshisc.com.au](mailto:admin@cshisc.com.au)

🌐 [www.cshisc.com.au](http://www.cshisc.com.au)

#### Construction and Property Services Industry Skills Council

PO Box 151 Belconnen ACT 2616 ☎ (02) 6253 0002

✉ [info@cpsisc.com.au](mailto:info@cpsisc.com.au)

🌐 [www.cpsisc.com.au](http://www.cpsisc.com.au)

#### EE-Oz Training Standards

PO Box 1202 Dickson ACT 2602 ☎ (02) 6241 2155

✉ [ee-oz@ee-oz.com.au](mailto:ee-oz@ee-oz.com.au)

🌐 [www.ee-oz.com.au](http://www.ee-oz.com.au)

#### Government Skills Australia

Level 2, 47-49 Waymouth St Adelaide SA 5000 ☎ (08) 8410 3455

✉ [info@governmentskills.com.au](mailto:info@governmentskills.com.au)

🌐 [www.governmentskills.com.au](http://www.governmentskills.com.au)

#### Innovation and Business Skills Australia

Level 11, 176 Wellington Pde East Melbourne VIC 3002

☎ (03) 9815 7000

🌐 [www.ibsa.org.au](http://www.ibsa.org.au)

#### Manufacturing Skills Australia

PO Box 289 North Sydney NSW 2059 ☎ (02) 9955 5500

🌐 [www.mskills.com.au](http://www.mskills.com.au)

#### Service Skills

GPO Box 4194 Sydney NSW 2001 ☎ (02) 8243 1200

✉ [info@serviceskills.com.au](mailto:info@serviceskills.com.au)

🌐 [www.serviceskills.com.au](http://www.serviceskills.com.au)

#### Skills DMC

Level 9, 36 Carrington St Sydney NSW 2000 ☎ (02) 9299 3014

✉ [skillsdmc@skillsdmc.com.au](mailto:skillsdmc@skillsdmc.com.au)

🌐 [www.skillsdmc.com.au](http://www.skillsdmc.com.au)

#### Transport and Logistics Industry Skills Council

Level 15, 628 Bourke St Melbourne VIC 3000 ☎ (03) 9604 7200

✉ [tlisc@tlisc.com.au](mailto:tlisc@tlisc.com.au)

🌐 [www.tlisc.com.au](http://www.tlisc.com.au)

### Training Authorities

#### Australian Capital Territory

##### ACT Accreditation and Registration Council

GPO Box 158 Canberra ACT 2601 ☎ (02) 6205 7091

🌐 [www.arc.act.gov.au](http://www.arc.act.gov.au)

#### New South Wales

##### NSW Vocational Education and Training Accreditation Board (VETAB)

Level 14, 1 Oxford St Darlinghurst NSW 2010 ☎ (02) 9244 5335

✉ [vetab@det.nsw.edu.au](mailto:vetab@det.nsw.edu.au)

🌐 [www.vetab.nsw.gov.au](http://www.vetab.nsw.gov.au)

#### Northern Territory

##### NT Department of Education and Training

Level 11 Mitchell Centre 55-59 Mitchell St Darwin NT 0800

☎ (08) 8999 5659

✉ [infocentre.det@nt.gov.au](mailto:infocentre.det@nt.gov.au)

🌐 [www.det.nt.gov.au](http://www.det.nt.gov.au)

#### Queensland

##### Queensland Training and Employment Recognition Council

Level 4 Education House 30 Mary St Brisbane QLD 4000

☎ (07) 3247 4901

✉ [terc.terc@det.qld.gov.au](mailto:terc.terc@det.qld.gov.au)

🌐 [www.training.qld.gov.au/about/overview/council](http://www.training.qld.gov.au/about/overview/council)

#### South Australia

##### SA Training and Skills Commission

GPO Box 320 Adelaide SA 5001 ☎ (08) 8226 3462

✉ [tasc@saugov.sa.gov.au](mailto:tasc@saugov.sa.gov.au)

🌐 [www.tasc.sa.gov.au](http://www.tasc.sa.gov.au)

#### Tasmania

##### Tasmanian Qualifications Authority

5th Floor Kirksway House 2 Kirksway Pl Battery Point TAS 7004

☎ (03) 6233 6364

✉ [reception@tqa.tas.gov.au](mailto:reception@tqa.tas.gov.au)

🌐 [www.tqa.tas.gov.au](http://www.tqa.tas.gov.au)

#### Victoria

##### Skills Victoria

Department of Innovation, Industry and Regional Development

PO Box 266 Melbourne VIC 3001 ☎ (03) 9651 9999

✉ [skills@diird.vic.gov.au](mailto:skills@diird.vic.gov.au)

🌐 [www.skills.vic.gov.au](http://www.skills.vic.gov.au)

#### Western Australia

##### Training Accreditation Council Western Australia

22 Hasler Rd Osborne Park WA 6017 ☎ (08) 9441 1910

✉ [tac@des.wa.gov.au](mailto:tac@des.wa.gov.au)

🌐 [www.tac.wa.gov.au](http://www.tac.wa.gov.au)

### Group Training Australia

#### National Office

GPO Box 7051 Sydney NSW 2001 ☎ (02) 9299 6099

✉ [gta@grouptraining.com.au](mailto:gta@grouptraining.com.au)

🌐 [www.grouptraining.com.au](http://www.grouptraining.com.au)

#### Victorian Office

113 Drummond St Carlton VIC 3053 ☎ (03) 9639 3955

✉ [admin@gtavic.asn.au](mailto:admin@gtavic.asn.au)

🌐 [www.gtav.com.au](http://www.gtav.com.au)

### Other providers of education and training

#### Airservices Australia

GPO Box 367 Canberra ACT 2601 ☎ 1300 301 120

✉ [avrecruit@airservicesaustralia.com](mailto:avrecruit@airservicesaustralia.com)

🌐 [www.airservicesaustralia.com](http://www.airservicesaustralia.com)

#### Auctioneers and Valuers Association of Australia Inc.

☎ (02) 8765 1573

✉ [aucval@atu.com.au](mailto:aucval@atu.com.au)

🌐 [www.avaa.com.au](http://www.avaa.com.au)



**Australian Academy of Design Inc**

220 Ingles St Port Melbourne VIC 3207 ☎ (03) 9676 9000

✉ [info@designacademy.edu.au](mailto:info@designacademy.edu.au)🌐 [www.designacademy.edu.au](http://www.designacademy.edu.au)**Australian and New Zealand Institute of Insurance and Finance, The**

Level 8, 600 Bourke St Melbourne VIC 3000 ☎ (03) 9613 7280

✉ [customerservice@theinstitute.com.au](mailto:customerservice@theinstitute.com.au)🌐 [www.theinstitute.com.au](http://www.theinstitute.com.au)**Australian Ballet School, The**

2 Kavanagh St Southbank VIC 3006 ☎ (03) 9669 2807

✉ [ask@australianballetschool.com.au](mailto:ask@australianballetschool.com.au)🌐 [www.australianballetschool.com.au](http://www.australianballetschool.com.au)**Australian Institute of Applied Sciences**

337 Logan Rd Stones Corner QLD 4120 ☎ 1300 880 933

🌐 [www.aias.com.au](http://www.aias.com.au)**Australian Institute of Export**

Export House Level 2, 22 Pitt St Sydney NSW 2000

☎ (02) 8243 7460

✉ [info@aiox.com.au](mailto:info@aiox.com.au)🌐 [www.aiox.com.au](http://www.aiox.com.au)**Australian Institute of Fitness (VIC)**

405 Church St (near Swan St) Richmond Hill VIC 3121

☎ (03) 9428 6666

🌐 [www.institute.edu.au](http://www.institute.edu.au)**Cabways**

71-75 Murphy St Richmond VIC 3121 ☎ (03) 9429 5244

✉ [info@taxistaffingservice.com.au](mailto:info@taxistaffingservice.com.au)🌐 [www.taxistaffingservice.com.au](http://www.taxistaffingservice.com.au)**CATC Design School**

Level 6, 271 William St Melbourne VIC 3000 ☎ (03) 9670 4026

**Chartered Secretaries Australia**

Level 10, 5 Hunter St Sydney NSW 2000 ☎ (02) 9223 5744

✉ [education@CSAust.com](mailto:education@CSAust.com)🌐 [www.csaust.com](http://www.csaust.com)**CMC - Training at Work**

Level 3, 17-23 Queensbridge St Southbank VIC 3006

☎ (03) 9207 7077

✉ [dhumunicki@trainingatwork.com.au](mailto:dhumunicki@trainingatwork.com.au)🌐 [www.trainingatwork.com.au](http://www.trainingatwork.com.au)**Customs Brokers and Forwarders Council of Australia Inc (National Office)**

PO Box 303 Hamilton QLD 4007 ☎ (07) 3256 0146

✉ [training@cbfca.com.au](mailto:training@cbfca.com.au)🌐 [www.cbfca.com.au](http://www.cbfca.com.au)**Directions Australia Pty Ltd**

PO Box 468 Kingsgrove NSW 1480 ☎ 1300 884 655

🌐 [www.directionsaustralia.com](http://www.directionsaustralia.com)**Driver Education Centre Australia**

29-45 Millers Rd Altona North VIC 3025 ☎ 1300 365 400

✉ [talk2us@deca.com.au](mailto:talk2us@deca.com.au)🌐 [www.deca.com.au](http://www.deca.com.au)**Endeavour College of Natural Health**

368 Elizabeth St Melbourne VIC 3000 ☎ (03) 9662 9911

🌐 [www.endeavour.edu.au](http://www.endeavour.edu.au)**Financial Planning Association of Australia (Head Office)**

GPO Box 4285 Sydney NSW 2001 ☎ 1300 337 301

✉ [fpa@fpa.asn.au](mailto:fpa@fpa.asn.au)🌐 [www.fpa.asn.au](http://www.fpa.asn.au)**Financial Services Institute of Australasia (Finsia Head Office)**

Level 16, 1 Margaret St Sydney NSW 2000 ☎ 1300 346 742

✉ [members@finsia.com](mailto:members@finsia.com)🌐 [www.insia.com](http://www.insia.com)**Fire Protection Association of Australia**

PO Box 1049 Box Hill VIC 3128 ☎ (03) 9890 1544

✉ [training@fpaa.com.au](mailto:training@fpaa.com.au)🌐 [www.fpaa.com.au](http://www.fpaa.com.au)**Footscray City College**✉ [constantinou.cleopatra.c@edumail.vic.gov.au](mailto:constantinou.cleopatra.c@edumail.vic.gov.au)🌐 [www.footscray.vic.edu.au](http://www.footscray.vic.edu.au)**Greening Australia Training**

PO Box 525 Heidelberg VIC 3084 ☎ (03) 9450 5300

✉ [general@gavic.org.au](mailto:general@gavic.org.au)🌐 [www.greeningaustralia.org.au](http://www.greeningaustralia.org.au)**Guide Dogs Victoria**

Private Bag 13 Kew VIC 3101 ☎ (03) 9854 4444

✉ [info@guidedogsvictoria.com.au](mailto:info@guidedogsvictoria.com.au)🌐 [www.guidedogsvictoria.com.au](http://www.guidedogsvictoria.com.au)**Health Information Management Association of Australia Ltd**

First Floor 51 Wicks Rd North Ryde NSW 1670 ☎ (02) 9887 5001

✉ [himaa@himaa.org.au](mailto:himaa@himaa.org.au)🌐 [www.himaa.org.au](http://www.himaa.org.au)**Institute of Actuaries of Australia**

Level 7 Challis House 4 Martin Pl Sydney NSW 2000

☎ (02) 9233 3466

✉ [actuaries@actuaries.asn.au](mailto:actuaries@actuaries.asn.au)**Integrated Care Management**

PO Box 71 Lambton NSW 2099 ☎ (02) 4957 7240

✉ [baffy@bigpond.com](mailto:baffy@bigpond.com)🌐 [www.icm.org.au](http://www.icm.org.au)**International Association of Trichologists**

Suite 919, 185 Elizabeth St Sydney NSW 2000 ☎ (02) 9267 1384

✉ [dsalinger@trichology.edu.au](mailto:dsalinger@trichology.edu.au)🌐 [www.trichology.edu.au](http://www.trichology.edu.au)**International Security Training Academy**

Lower Ground Floor 51 Queen St Melbourne VIC 3000

☎ (03) 9620 3207

✉ [ista@ista.com.au](mailto:ista@ista.com.au)🌐 [www.ista.com.au](http://www.ista.com.au)**JMC Academy (Melbourne)**

169-171 Bank St South Melbourne VIC 3205 ☎ (03) 9696 4117

🌐 [www.jmcacademy.edu.au](http://www.jmcacademy.edu.au)**Longerenong College**

229 Longerenong Rd Longerenong VIC 3401 ☎ (03) 5362 2222

✉ [info@longy.com.au](mailto:info@longy.com.au)🌐 [www.longy.com.au](http://www.longy.com.au)**Mayfield Education**

2-10 Camberwell Rd Hawthorn East VIC 3123 ☎ (03) 9882 7644

✉ [msmith@mayfield.edu.au](mailto:msmith@mayfield.edu.au)🌐 [www.mayfield.edu.au](http://www.mayfield.edu.au)**Melbourne College of Hair and Beauty**

First Floor 244 Flinders St Melbourne VIC 3000 ☎ (03) 9650 1056

✉ [info@mcohb.com.au](mailto:info@mcohb.com.au)🌐 [www.mcohb.com.au](http://www.mcohb.com.au)**Murray Mallee Training Company**

335-339 Campbell St Swan Hill VIC 3585 ☎ (03) 5003 1216

✉ [tracee@swanhill.net.au](mailto:tracee@swanhill.net.au)🌐 [www.mmtc.com.au](http://www.mmtc.com.au)**National College of Court Reporting**

38 Cowan St Gawler SA 5118 ☎ (08) 8523 5517

🌐 [www.nccr.com.au](http://www.nccr.com.au)**National Institute of Dramatic Art (NIDA)**

c/- UNSW Sydney NSW 2052 ☎ (02) 9697 7600

✉ [info@nida.edu.au](mailto:info@nida.edu.au)🌐 [www.nida.edu.au](http://www.nida.edu.au)



**National Insurance Brokers Association of Australia**

Level 18, 111 Pacific Hwy North Sydney NSW 2060

☎ (02) 9459 4300

✉ [education@nibacollege.com.au](mailto:education@nibacollege.com.au)

🌐 [www.nibacollege.com.au](http://www.nibacollege.com.au)

**Oceania Polytechnic Institute of Education**

Level 3, 446 Collins St Melbourne VIC 3000 ☎ (03) 9663 3129

✉ [info@opie.vic.edu.au](mailto:info@opie.vic.edu.au)

🌐 [www.opie.vic.edu.au](http://www.opie.vic.edu.au)

**Real Estate Institute of Victoria**

335 Camberwell Rd Camberwell VIC 3124 ☎ (03) 9205 6666

✉ [training@reiv.com.au](mailto:training@reiv.com.au)

🌐 [www.reiv.com.au](http://www.reiv.com.au)

**Royal Life Saving Society Australia**

200 The Boulevard Port Melbourne VIC 3207 ☎ (03) 9676 6900

✉ [mail@lifesavingvictoria.com.au](mailto:mail@lifesavingvictoria.com.au)

🌐 [www.lifesavingvictoria.com.au](http://www.lifesavingvictoria.com.au)

**Rural Industries Skill Training Centre**

Private Bag 105 Mount Napier Rd Hamilton VIC 3300

☎ (03) 5573 0943

✉ [ristvic@rist.com.au](mailto:ristvic@rist.com.au)

🌐 [www.rist.com.au](http://www.rist.com.au)

**SAE Institute - Melbourne**

235 Normanby Rd South Melbourne VIC 3205 ☎ (03) 8632 3400

✉ [infomelbourne@sae.edu](mailto:infomelbourne@sae.edu)

🌐 <http://melbourne.sae.edu>

**Southern School of Natural Therapies**

25 Victoria St Fitzroy VIC 3065 ☎ (03) 9415 3333

✉ [ssnt@ssnt.com.au](mailto:ssnt@ssnt.com.au)

🌐 [www.southernschool.com](http://www.southernschool.com)

**Taxi Industry Training Victoria**

Suite 2, 85 Salmon St Port Melbourne VIC 3207 ☎ (03) 9676 2635

✉ [admin@victaxi.com.au](mailto:admin@victaxi.com.au)

🌐 [www.victaxi.com.au](http://www.victaxi.com.au)

**Technical Advanced Training**

Suite 5, 11-17 Pearceedale Pde Broadmeadows VIC 3047

☎ (03) 9309 0059

✉ [info@advancetraining.com.au](mailto:info@advancetraining.com.au)

🌐 [www.advancetraining.com.au](http://www.advancetraining.com.au)

**TK Melbourne**

Level 17, 190 Queen St Melbourne VIC 3000 ☎ (03) 9640 0053

✉ [info@tkmelb.vic.edu.au](mailto:info@tkmelb.vic.edu.au)

🌐 [www.tkmelb.vic.edu.au](http://www.tkmelb.vic.edu.au)

**Victorian Aboriginal Community Controlled Health Organisation**

5-7 Smith St Fitzroy VIC 3065 ☎ (03) 9419 3350

✉ [enquiries@vaccho.com.au](mailto:enquiries@vaccho.com.au)

🌐 [www.vaccho.org.au](http://www.vaccho.org.au)

**Western Australian Academy of Performing Arts (WAAPA)**

2 Bradford St Mount Lawley WA 6050 ☎ (08) 9370 6594

✉ [waapa@ecu.edu.au](mailto:waapa@ecu.edu.au)

🌐 [www.waapa.ecu.edu.au](http://www.waapa.ecu.edu.au)

**Whitehouse Institute of Design**

Level 4, 672 Bourke St Melbourne VIC 3000 ☎ (03) 9600 3625

✉ [enquiry@whitehouse-design.edu.au](mailto:enquiry@whitehouse-design.edu.au)

🌐 [www.whitehouse-design.edu.au](http://www.whitehouse-design.edu.au)

**Yellow Cabs (VIC) Pty Ltd**

35 Downing St Oakleigh VIC 3166 ☎ (03) 9277 3715

✉ [info@13cabs.com.au](mailto:info@13cabs.com.au)

🌐 [www.13cabs.com.au](http://www.13cabs.com.au)

**Centrelink Career Information Centres****Melbourne**

☎ 1800 048 525 (FREECALL)

✉ [cic.melbourne@centrelink.gov.au](mailto:cic.melbourne@centrelink.gov.au)

**Geelong**

First Floor 170 Little Malop St Geelong VIC 3220 ☎ 1800 706 455 (FREECALL)

✉ [cic.geelong@centrelink.gov.au](mailto:cic.geelong@centrelink.gov.au)

**Centrelink Offices**

Please refer to the Centrelink website to locate your nearest office.

🌐 [www.centrelink.gov.au](http://www.centrelink.gov.au)

**National Disability Coordination Officer**

For a full list of the National Disability Coordination Officers across the country please refer to the website.

🌐 [www.deewr.gov.au/ndco](http://www.deewr.gov.au/ndco)

**Eastern Melbourne**

RMIT University Cardigan St Melbourne VIC 3000 ☎ (03) 9925 5269

✉ [jill.sears@rmit.edu.au](mailto:jill.sears@rmit.edu.au)

🌐 [www.ndcovictoria.net.au](http://www.ndcovictoria.net.au)

**Inner and Northern Melbourne****Inner Melbourne VET Cluster**

Level 1, 71 Palmerston Cres South Melbourne VIC 3205

☎ (03) 9686 2354

✉ [ekapsalos@imvc.com.au](mailto:ekapsalos@imvc.com.au)

🌐 [www.imvc.com.au](http://www.imvc.com.au)

**Northern and Central Victoria****University of Melbourne**

21 Nixon St Shepparton VIC 3630 ☎ (03) 5823 6624

✉ [cressida@unimelb.edu.au](mailto:cressida@unimelb.edu.au)

🌐 [www.ndcovictoria.net.au](http://www.ndcovictoria.net.au)

**Southern Melbourne and Mornington Peninsula****Skills Plus**

Level 2, 54-58 Well St Frankston VIC 3199 ☎ (03) 9784 0400

✉ [sally@skillsplus.com.au](mailto:sally@skillsplus.com.au)

🌐 [www.ndcovictoria.net.au](http://www.ndcovictoria.net.au)

**Western Melbourne**

RMIT University Cardigan St Melbourne VIC 3000 ☎ (03) 9925 3531

✉ [margie.sinclair@rmit.edu.au](mailto:margie.sinclair@rmit.edu.au)

🌐 [www.ndcovictoria.net.au](http://www.ndcovictoria.net.au)

**Western Regional Victoria****University of Ballarat**

Mount Helen Campus PO Box 663 Ballarat VIC 3353

☎ (03) 5327 9337

✉ [g.kerridge@ballarat.edu.au](mailto:g.kerridge@ballarat.edu.au)

**Wodonga/Gippsland and Outer South East Melbourne****Wodonga TAFE**

Building A 87 McKoy St West Wodonga VIC 3690 ☎ (02) 6055 6919 or (02) 6055 6924

✉ [jfry@wodonga.tafe.edu.au](mailto:jfry@wodonga.tafe.edu.au)

🌐 <http://ndco.wodongatafe.edu.au/>



# Useful terms

Below is a list of terms that you might come across on your career journey.

|  |  |                                    |   |
|--|--|------------------------------------|---|
| Accredited training                    | Training that is nationally recognised, and is provided by Registered Training Organisations, including TAFE.  | Award rate                         | The minimum rate of pay for a particular classification in an award. Payments over the award rate are quite common and are referred to as 'over-award' payments (see below).  |
| Advanced diploma                       | A VET or higher education award usually requiring a minimum of four semesters to complete.   | Bachelor degree                    | An undergraduate award requiring six or more semesters of full-time or equivalent part-time study.  |
| Affirmative action                     | An Australian Government policy to achieve equal employment opportunity for women in the workplace. Most state governments have complementary legislation. See also Discrimination and Equal Employment Opportunity.   | Block release training             | The release of apprentices from their normal workplace (usually two weeks per term) to attend full-time vocational study.   |
| Annual leave                           | The paid holidays to which all full-time and part-time employees are entitled, usually four weeks for each year of full-time employment or a proportional amount for part-time employment.   | Bonus                              | An additional payment made by an employer for good performance or greater productivity.   |
| Apprenticeship                         | Apprenticeships combine practical work with structured training to provide a nationally recognised qualification and experience. Participants earn while they learn. Referred to as Australian Apprenticeships in some states.   | Business hours                     | Usually Monday to Friday from 9 am to 5 pm, however hours vary greatly between industry sectors.  |
| Associate degree                       | An undergraduate award usually requiring two years full-time or the equivalent part-time study.  | Cadetship                          | An employment arrangement in which an employer agrees to subsidise formal training of an employee to enable certain qualifications to be obtained. The employee is usually required to remain with the employer for a specified period after training is completed.                   |
| Assumed knowledge                      | The minimum level of achievement in senior school studies considered necessary for successful first year tertiary study. Students lacking the assumed level of knowledge are not prevented from enrolling. However, they may be disadvantaged unless they undertake recommended bridging, preparatory or introductory subjects prior to or during their first year of study. | Casual work                        | Employment in which the days, hours and times worked may vary according to the need of your employer. You are usually paid on an hourly basis.  |
| Australian Apprenticeship              | Australian Apprenticeships combine practical work with structured training to provide a nationally recognised qualification and experience. Participants earn while they learn. Referred to as apprenticeships or traineeships in some states.   | Certified agreement                | An agreement between an employer and employees or union(s) detailing wages, working conditions and work practices in that particular organisation.  |
| Australian School-based Apprenticeship | An arrangement that enables students to start an Australian Apprenticeship while continuing their school studies.  | Commission                         | A fee or percentage paid to a salesperson or agent for sales or services, usually on top of a retainer.   |
| Award                                  | A legally binding document setting out rates of pay and conditions to be provided by employers for employees covered by the award. There are federal and state awards.   | Commonwealth Supported Place (CSP) | A university place where the tuition costs are subsidised by the government. The remaining amount, called the 'student contribution', may be paid in full by the student or deferred using HECS-HELP (see below).   |
|  |  | Competency-based training          | Training based on the ability to perform tasks rather than the length of time spent in training.  |
|  |  | Contract of employment             | An informal agreement between an employer and employee about the job to be done and the conditions of employment (e.g. wages, hours of work). Unlike formal agreements, an informal agreement, such as a contract of employment, does not have to be registered by a government body. |



|   |  |  |   |
|---|--|--|---|
| Contract of training/<br>Training agreement | A legally binding contract/agreement between the employer and apprentice. The employer guarantees to train the apprentice in the agreed occupation and the apprentice agrees to learn all aspects of the occupation and to work for the employer for a specified period of time.   | Freelance                                  | A form of self-employment whereby a person agrees to do some work for someone else at an agreed price.  |
| Curriculum Vitae<br>(CV)                    | Written summary of a person's educational qualifications, employment history and personal details.   | Full-fee place                             | A place in a higher education course where the student is responsible for meeting the entire cost of tuition. See FEE-HELP.   |
| Danger money                                | Payment in addition to normal wages for work that involves some risk.  | Full-time work                             | Generally considered to be employment for a full working week (normally five or six days) for a minimum of 35 hours. Full-time workers are eligible for annual leave, sick leave and other entitlements.  |
| Deductions                                  | Money taken out of an employee's pay by an employer for payments such as superannuation or health care.  | Graduate diploma                           | A postgraduate award requiring one year of full-time or equivalent part-time study.   |
| Dependant                                   | A person who is wholly or partly supported financially by someone else.  | Gross pay                                  | Pay before tax and other deductions have been taken out.  |
| Diploma                                     | A VET or higher education award usually requiring two years of full-time or equivalent part-time study.  | Group certificate                          | See PAYG summary.   |
| Discrimination                              | Unfair treatment of someone, or giving another an advantage or a disadvantage, because of their ethnic background, politics, religion, gender or other personal attribute which does not relate to work performance. See also Equal Employment Opportunity.  | Group Training Organisation                | A Group Training Organisation is a company which takes on apprentices and then hires them out for short or long periods to employers who do not have the capacity to take them on full time.  |
| Dismissal                                   | When an employer ends a worker's employment.   | HECS-HELP                                  | A government loan scheme that helps students with a Commonwealth Supported Place to pay their student contribution. HELP loans are repaid after graduation through the taxation system.   |
| Duty statement                              | A written outline of the main duties, responsibilities and qualifications required for a particular job. Also called a position description.   | Income tax                                 | Tax deducted from an employee's wages by the employer and paid to the federal government.   |
| Employer association                        | An association of employers to promote and represent their individual or collective interests.   | Indenture                                  | The contract by which a person, such as an apprentice, is bound to service. It is now known as a contract of training or training agreement.  |
| Equal Employment Opportunity (EEO)          | An Australian Government policy to discourage discrimination in employment. Employers following this policy consider job applicants on their ability, not on their ethnic background, politics, religion, gender or other personal attributes that do not relate to work performance.  | Itinerant worker                           | A person who travels from place to place working in various jobs.   |
| FEE-HELP                                    | A government loan scheme that helps full-fee students to meet their tuition costs. HELP loans are repaid after graduation through the taxation system.   | Job sharing                                | An arrangement where one full-time job is shared by two or more employees. The hours of work are arranged to suit the employees and the particular job.   |
| Flexitime                                   | An arrangement whereby employees can start and finish work earlier or later than the normal times. Time debits or credits can be built up (within specified limits), enabling a flex day to be taken off now and then. There are conditions attached to flexitime to make the system manageable. These vary between employers. | Key competencies<br>(Employability Skills) | Any of several generic skills or competencies considered essential for people to participate effectively in the workforce. They include: collecting, analysing and organising information; communicating ideas and information; planning and organising activities; working with others and in teams; using mathematical ideas and techniques; solving problems and using technology. |
|   |  | Labour market                              | A term used to describe the number of people who are willing and able to work.  |



|                                     |   |  |  |
|-------------------------------------|---|--|--|
| Leave loading                       | An extra payment given to some employees when they take annual leave.   | Piecework  | Work for which pay is based on the number of 'pieces' or goods that are completed or produced, e.g. garments made or fruit picked.   |
| Lecture                             | Usually formal instructional classes involving large groups of students.  | Prerequisite   | A subject or qualification required to be eligible for entry to a particular course of study.  |
| Living away from home allowance     | An allowance paid to an employee who is prevented by employment from living at their normal place of residence.   | Pre-vocational course  | Introductory course aimed at giving participants a range of underpinning skills (including literacy, numeracy, communication) needed to be ready for employment or more specific skills-based training.  |
| Long service leave                  | An additional period of leave, usually three months, granted to an employee who has worked for the same employer for 10-15 years.   | Probation/ probationary period   | A trial period that enables an employer to assess a person's suitability for a job.  |
| Maternity/paternity/ parental leave | Granted to parents by employers to cover a period of several weeks before and after the birth of a child. Unpaid leave of up to 12 months may be granted and in some cases a limited period of paid leave may be granted. | Promotion  | Advancement to a job of higher rank or position that attracts higher pay.  |
| Minimum wage                        | The lowest wage which may legally be paid to an adult employee.   | Quota (employment)   | A set amount of work that each employee must complete. For example, a factory worker may be required to produce a certain number of products every day. Quotas may be set on an individual, team or entire company basis. Not all jobs require employees to work to a quota. |
| Net pay                             | Pay after deductions (tax, superannuation, etc.) have been taken out.   | Quota (study)  | A limit which a college or university places on the number of students who can enter a course at any one time.   |
| Off-the-job training                | Instruction that takes place away from an individual's normal work situation.   | Recognition of Prior Learning (RPL)/ Recognition of Current Competency (RCC) | Credit given for previous experience or training, used for entry to, or credit towards, formal education or training.  |
| On-the-job training                 | Instruction that takes place in a normal work situation while workers are doing their normal job.   | Recreation leave   | See Annual leave.  |
| Over award payments                 | Payments over the minimum rate specified in the award are referred to as 'over award' payments.   | Redeployment   | Movement of an employee between jobs for greater efficiency or when some tasks are no longer needed, for example, when machinery takes over some jobs.   |
| Overtime                            | Time worked in excess of the daily/weekly hours prescribed by an award or determination.  | Redundancy pay/ severance pay  | Compensation paid by an employer to an employee whose services are no longer required because of the introduction of automation or other technological changes, or a decrease in the demand for goods/services provided by the company.                                      |
| Part-time (P/T) work                | Work for significantly fewer set hours than for full-time work under the same award. Part-time workers are eligible for annual leave, sick leave, etc. in proportion to the time worked.                                  | Reference  | A statement about personal qualifications, character and dependability from a responsible person (referee) familiar with the job applicant.  |
| PAYG (Pay As You Go) summary        | A yearly statement of an employee's earnings issued by the employer for taxation purposes. Formerly known as a group certificate.   | Registered Training Organisation (RTO)                                       | Any training organisation registered to provide vocational education, training and/or assessment services.   |
| Penalty pay                         | An additional amount of money that must be paid according to some awards to employees for working nights, weekends or public holidays.  | Resignation  | Formal notice of an employee's intention to cease working for an employer. The conditions under which a person may resign are contained within the relevant Award or Agreement for each position. Normally at least one week's notice must be given when resigning.          |
| Pension                             | A regular government payment, usually made to people to meet social welfare needs such as an age, carer's, widow's or disability pension.   |  |  |
| Personnel officer                   | An employee concerned with all matters affecting staff, such as recruitment, welfare, training, wages and salaries.   |  |  |



|                        |   |                           |  |
|------------------------|---|---------------------------|--|
| Résumé                 | A written summary of educational qualifications, employment history and personal details. This can also be called a Curriculum Vitae (CV).  | Structured work placement | Students learn practical skills through structured experience and practice in the workplace. The outcome of this on-the-job training contributes to the senior secondary school certificate and an industry recognised qualification.  |
| Retainer               | A basic fee or wage paid to salespeople. A commission is usually paid as well.  | Study leave               | Leave given to employees to attend courses of study that are approved by their employer.   |
| Retirement             | The end of employment, generally due to the worker reaching a certain age.  | Superannuation (Super)    | A savings scheme funded by employers and employees. The total (plus interest) is paid out either in full or as a continuing pension to the employee on retirement.   |
| Retraining             | Training which is given so that an employee can take another job.   | Supervision               | Workload is allocated to members of a team by a supervisor. Some positions are closely supervised while others allow for a more flexible, independent and self-motivated approach. In every job there is an element of supervision.  |
| Rostered Day Off (RDO) | A paid day's leave granted instead of payment for extra hours worked in a fixed period, e.g. a fortnight or month. Some awards and agreements provide an RDO as part of the normal hours of work.               | TAFE                      | Technical and Further Education (TAFE) institutes provide Vocational Education and Training courses.   |
| Salary                 | A fixed amount of money paid to an employee for work performed. This can be expressed as an annual, monthly, fortnightly or weekly amount.  | Taxable income            | The portion of a person's income remaining after any tax-free allowances have been deducted. It is normally less than gross income.  |
| Scholarship            | A lump sum grant designed to help maintain a student. There may or may not be conditions attached to the grant. For example, you may have to work for a specified time for the organisation granting the funds. | Tertiary education        | Post-secondary courses offered by universities, private providers and TAFE institutes.   |
| Seasonal work          | Work that is only done at certain times of the year, such as fruit picking or shearing.   | Trainee                   | A person who is receiving instruction.   |
| Selection test         | A method used by employers to determine suitable applicants. Selection tests may vary in length and subject matter. Generally they are based on speed and accuracy combined with knowledge of the subject area. | Traineeship               | Traineeships combine practical work with structured training to provide a nationally recognised qualification and experience. Participants earn while they learn. Referred to as Australian Apprenticeships in some states.  |
| Self-employment        | A person who works for themselves rather than for an employer.  | Training                  | The development of skills, knowledge and aptitudes necessary to perform a job.   |
| Seniority              | A worker's position in the workplace according to their level of experience or the responsibility of the position they hold.  | Training packages         | Training packages are set standards and qualifications for recognising and assessing people's skills developed by industry and endorsed by government. The training packages ensure that Vocational Education and Training meets industry standards and is consistent across states and territories. |
| Shift work             | In some industries, work may be rostered into two or three shifts over a 24-hour period.  | Tutorial                  | A class that is smaller than a formal lecture, which provides students with the opportunity to discuss the lecture material or other associated topics in greater depth with their tutor and fellow students.  |
| Sick leave             | Paid leave granted to an employee who cannot attend work because of illness or injury. There is a limit to the amount of sick leave that can be taken.  |                           |  |
| Special leave          | Paid leave granted to cover special situations such as the death of close relatives, attending jury service, undertaking private study or attending to trade union affairs.                                     |                           |  |

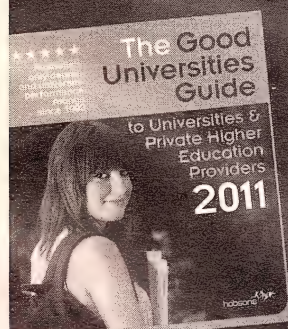


|   |  |                      |  |
|---|--|----------------------|--|
| Union                                   | An association of people doing the same or similar work or working in the same industry who have come together collectively to further their common interests by negotiating with employers.                 | Wages                | Payment for services which is usually made on an hourly, daily, weekly or piece basis (see Salary).  |
| VET FEE-HELP                            | Assists eligible students undertaking certain VET courses of study with an approved VET provider to pay for all or part of their tuition costs.  | Work experience      | Any unpaid participation in the workforce designed to provide an experience of working life. Many schools arrange work experience for secondary students as part of career education programs. |
| Vocational Education and Training (VET) | Post-compulsory education and training, excluding degree and higher level programs delivered by higher education institutions, which provides people with occupational or work-related knowledge and skills. | Workers compensation | Money paid to an employee for losses (financial and physical) caused by an injury or disease that occurs at work.  |
| VET in Schools (VETiS)                  | Vocational Education and Training courses undertaken as part of a Senior Secondary Certificate of Education.   | Workplace agreement  | Individual agreements between employers and workers, and sometimes their representatives, for a particular workplace that set out the conditions of employment.                                |
| Voluntary work                          | Work that is done for no payment, such as delivering Meals on Wheels or hospital visiting.   | Workplace bargaining | The process in which the employer and employees or union(s) work together to develop an agreement on wages and conditions which apply to that organisation.                                    |

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## APPLICATIONS

At Swinburne, you can apply directly for all courses and intakes at any time of the year, or you can also apply for Semester 1 through VTAC.

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# APPRENTICESHIPS

At Swinburne, preapprenticeship, apprenticeship or traineeship courses help you gain skills in a particular industry or work and learn on the job.

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# BUSINESS

At Swinburne, business and commerce courses are taught by staff with industry experience, and industry-based learning internships are part of our degrees.

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| Child Care Aide, see Child Care Worker  | 113        | Columnist, see Journalist  | 239        |
| Child Care Assistant, see Child Care Worker   | 113        | Comedian, see Entertainer  | 167        |
| <b>Child Care Coordinator</b>   | <b>112</b> | Commercial Artist, see Graphic Designer  | 206        |
| Child Care Director, see Child Care Coordinator   | 112        | Commercial Diver, see Diver  | 149        |
| <b>Child Care Worker</b>  | <b>113</b> | Commercial Pilot, see Pilot  | 322        |
| Children's Entertainer, see Entertainer   | 167        | Commercial Traveller, see Sales Representative                                       | 359        |
| <b>Chiropractor</b>   | <b>114</b> | Commis Chef, see Chef  | 109        |
| Chocolatier, see Confectioner   | 126        | Commis Waiter, see Waiter  | 431        |
| Choreographer, see Dancer   | 140        | Commodities Trader, see Financial Dealer and Broker                                  | 179        |
| Circus Performer, see Entertainer   | 167        | Communications Controller, see Radio Despatcher                                      | 345        |
| <b>Civil and Structural Engineering Associate</b>   | <b>115</b> | Communications Programmer (Systems), see Programmer (Information Technology)         | 335        |
| <b>Civil Celebrant</b>  | <b>116</b> | Community Celebrant, see Civil Celebrant   | 116        |
| Civil Construction Worker, see Road Worker  | 355        | Community Constable, see Indigenous Community Liaison Officer                        | 222        |
| <b>Civil Engineer</b>   | <b>116</b> | Community Corrections Officer, see Probation and Parole Officer                      | 333        |
| Civil Engineering and Structural Technician, see Civil and Structural Engineering Associate | 115        | Community Dance Worker, see Dancer   | 140        |
| Civil Engineering Design Drafter, see Civil and Structural Engineering Associate            | 115        | Community Development Officer, see Community Worker                                  | 122        |
| <b>Civil Engineering Technologist</b>   | <b>118</b> |  |            |

## COURSE RANGE

At Swinburne, you'll find there are many more courses on offer than just these ads, with guaranteed pathways and flexible options at university or TAFE or both.

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|   |            |  |            |
|---|------------|--|------------|
| Electronic Instrument Tradesperson, see Instrumentation Tradesperson                  | 230        | Exercise Physiologist, see Sports Scientist                                | 380        |
| <b>Electronics and Communications Technician</b>                                      | <b>161</b> | Exercise Professional, see Fitness Instructor                              | 185        |
| <b>Electronics Engineer</b>   | <b>162</b> | <b>Exhaust Fitter and Repairer</b>   | <b>170</b> |
| <b>Electronics Engineering Associate</b>  | <b>162</b> | Exhibitions Officer, see Museum Curator                                    | 283        |
| Electronics Engineering Technician, see Electronics Engineering Associate             | 162        | <b>F</b>   |            |
| Electronics Technical Officer, see Electronics Engineering Associate                  | 162        | Facilities Manager, see Strata Managing Agent                              | 386        |
| Electroplater, see Engineering Tradesperson - Fabrication                             | 164        | Factory Hand, see Product Assembler  | 334        |
| Electrotechnology (Data) Communications Technician, see Telecommunications Technician | 400        | Family and Consumer Studies Professional, see Home Economist               | 213        |
| Electrotechnology Communications Technician, see Broadcasting Technician              | 94         | Family Celebrant, see Civil Celebrant                                      | 116        |
| Electrotechnology Instrumentation Tradesperson, see Instrumentation Tradesperson      | 230        | Family Counsellor, see Counsellor  | 133        |
| Electrotechnology Systems Electrician, see Electrician                                | 160        | <b>Family Day Carer</b>  | <b>171</b> |
| Embalmer, see Funeral Attendant   | 196        | Family Support Worker, see Youth Worker                                    | 442        |
| Employee Relations Officer, see Industrial Relations Officer                          | 226        | <b>Farm Hand</b>   | <b>171</b> |
| Endodontist, see Dentist  | 145        | Farm Overseer, see Farmer/Farm Manager                                     | 172        |
| <b>Engine Reconditioner</b>   | <b>163</b> | <b>Farmer/Farm Manager</b>   | <b>172</b> |
| Engineering Associate (Mechanical), see Mechanical Engineering Associate              | 264        | <b>Farrier</b>   | <b>173</b> |
| Engineering Geologist, see Geologist  | 203        | <b>Fashion Coordinator</b>   | <b>174</b> |
| Engineering Patternmaker, see Engineering Tradesperson - Fabrication                  | 164        | <b>Fashion Designer</b>  | <b>174</b> |
| Engineering Surveyor, see Surveyor  | 389        | Fashion Sales Assistant, see Sales Assistant                               | 358        |
| Engineering Technical Officer, see Civil and Structural Engineering Associate         | 115        | Fast Food Sales Assistant, see Sales Assistant                             | 358        |
| Engineering Tradesperson - Electrical/Electronics, see Electrician                    | 160        | Feature Writer, see Journalist   | 239        |
| <b>Engineering Tradesperson - Fabrication</b>   | <b>164</b> | Federal Agent, see Police Officer - Australian Federal Police              | 326        |
| <b>Engineering Tradesperson - Mechanical</b>  | <b>165</b> | Federal Police Officer, see Police Officer - Australian Federal Police     | 326        |
| <b>Engraver</b>   | <b>166</b> | Ferry Hand, see Deck Hand  | 141        |
| Enrolled Nurse (Division 2), see Nurse - Enrolled                                     | 295        | Ferry Master, see Ship's Master  | 369        |
| Enroute Controller, see Air Traffic Controller  | 62         | Fibre Optics Cable Splicer, see Cable Joiner                               | 100        |
| <b>Entertainer</b>  | <b>166</b> | Fibre Optics Joiner, see Cable Joiner                                      | 100        |
| Environmental Chemist, see Chemist  | 112        | Fibre Textile Worker, see Craftsperson                                     | 135        |
| Environmental Economist, see Economist  | 154        | Fibreglass Worker, see Plastics and Composites Processor                   | 324        |
| <b>Environmental Engineer</b>   | <b>167</b> | Field Assistant, see Animal Technician                                     | 67         |
| Environmental Field Officer, see Landcare Worker                                      | 242        | Field Hydrologist, see Hydrographer  | 220        |
| Environmental Geographer, see Geographer  | 200        | Field/Exploration Geologist, see Geologist                                 | 203        |
| Environmental Geologist, see Geologist  | 203        | Fighter Pilot, see Air Force Officer                                       | 60         |
| <b>Environmental Health Officer</b>   | <b>168</b> | <b>Film and Television Camera Operator</b>                                 | <b>175</b> |
| Environmental Officer, see Environmental Scientist                                    | 169        | <b>Film and Television Editor</b>  | <b>176</b> |
| <b>Environmental Scientist</b>  | <b>169</b> | <b>Film and Television Lighting Operator</b>                               | <b>177</b> |
| Environmental Toxicologist, see Toxicologist  | 411        | <b>Film and Television Producer's Assistant</b>                            | <b>178</b> |
| Ergonomist, see Occupational Health and Safety Officer                                | 298        | Film and Television Producer, see Film and Television Producer's Assistant | 178        |
| Ethnomusicologist, see Musician   | 285        | Film Star, see Actor   | 51         |
| <b>Events Coordinator</b>   | <b>170</b> | <b>Film, Stage and Television Director</b>                                 | <b>178</b> |
|   |            | Finance Broker, see Financial Dealer and Broker                            | 179        |
|   |            | Finance Manager, see Accountant  | 48         |
|   |            | <b>Financial Dealer and Broker</b>   | <b>179</b> |
|   |            | <b>Financial Dealer's Assistant</b>  | <b>181</b> |

## FILM/TELEVISION

At Swinburne, you can engage in the creative, practical and critical processes needed to harness your creativity and turn it into a dream career.

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G

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# 5 STARS

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|  |            |  |            |
|--|------------|--|------------|
| Geochemist, see Chemist  | 112        | Harbour Engineer, see Civil Engineer   | 117        |
| Geochemist/Mineralogist/Petrologist, see Geologist                           | 203        | Hard Floor Finisher, see Floor Finisher and Coverer                          | 187        |
| Geodetic Surveyor, see Surveyor  | 389        | Hardware Design Engineer, see Computer Engineer                              | 124        |
| <b>Geographer</b>  | <b>200</b> | Hardware Sales Assistant, see Sales Assistant                                | 358        |
| <b>Geographic Information Systems Officer</b>                                | <b>201</b> | Hat Maker, see Milliner  | 275        |
| <b>Geological Engineer</b>   | <b>201</b> | Health and Physical Education Teacher, see Teacher -<br>Physical Education   | 395        |
| Geological Technician, see Geoscience Technician                             | 205        | Health Informatician, see Health Information Manager                         | 210        |
| <b>Geologist</b>   | <b>202</b> | <b>Health Information Manager</b>  | <b>210</b> |
| Geomatic Engineer, see Surveyor  | 389        | Health Insurance Assessor, see Insurance Officer                             | 232        |
| Geomorphologist, see Geologist   | 203        | <b>Health Promotion Officer</b>  | <b>210</b> |
| Geophysical Technician, see Geoscience Technician                            | 205        | Health Promotion Practitioner, see Health Promotion Officer                  | 210        |
| <b>Geophysicist</b>  | <b>204</b> | Health Psychologist, see Psychologist  | 338        |
| Geoscience Field Officer, see Science Field Officer                          | 362        | Health Surveyor, see Environmental Health Officer                            | 168        |
| <b>Geoscience Technician</b>   | <b>205</b> | Health/Hospital Executive, see Hospital Administrator                        | 217        |
| Geoscientist, see Geologist  | 202        | Hearing Aid Audiometrist, see Audiometrist                                   | 79         |
| Geotechnical Engineer, see Geological Engineer                               | 201        | <b>Heat Treater</b>  | <b>211</b> |
| Geotechnical/Soil Engineer, see Civil Engineer                               | 117        | Heating and Ventilation Plumber, see Plumber                                 | 325        |
| <b>Glass and Glazing Tradesperson</b>  | <b>205</b> | Heavy Haulage Driver, see Truck Driver                                       | 420        |
| Glass Beveller, see Glass and Glazing Tradesperson                           | 206        | Heavy Truck Driver, see Truck Driver   | 420        |
| Glass Craftsperson, see Craftsperson   | 135        | Heavy Vehicle Mobile Equipment Mechanic, see Heavy<br>Vehicle Motor Mechanic | 212        |
| Glass Cutter, see Glass and Glazing Tradesperson                             | 206        | <b>Heavy Vehicle Motor Mechanic</b>  | <b>212</b> |
| Glass Embosser, see Glass and Glazing Tradesperson                           | 206        | Heavy Vehicle Motor Technician, see Heavy Vehicle Motor<br>Mechanic          | 212        |
| Glass Production Worker, see Machine Operator (Non-metal<br>products)        | 252        | Heavy Vehicle Road Transport Mechanic, see Heavy<br>Vehicle Motor Mechanic   | 212        |
| Glass Silverer, see Glass and Glazing Tradesperson                           | 206        | Helicopter Pilot, see Pilot  | 322        |
| Glazier/Structural Glass Tradesperson, see Glass and<br>Glazing Tradesperson | 206        | Help Desk Operator, see Information Technology Support<br>Technician         | 229        |
| Governess, see Nanny   | 287        | Herbalist, see Natural Therapist   | 288        |
| Government Marine Surveyor, see Marine Surveyor                              | 256        | High School Teacher, see Teacher - Secondary                                 | 397        |
| Government Pharmacist, see Pharmacist  | 315        | Highway Engineer, see Civil Engineer   | 117        |
| GP, see Medical Practitioner   | 268        | Hire Car Driver, see Car Driver  | 100        |
| Grader Operator, see Mobile Plant Operator                                   | 279        | <b>Historian</b>   | <b>212</b> |
| <b>Graphic Designer</b>  | <b>206</b> | Home Care Worker, see Special Care Worker                                    | 376        |
| <b>Graphic Prepress Tradesperson</b>   | <b>207</b> | Home Economics Teacher, see Home Economist                                   | 213        |
| Greenkeeper, see Horticultural Tradesperson                                  | 217        | <b>Home Economist</b>  | <b>213</b> |
| Groom, see Stablehand  | 382        | <b>Home Improvement Installer</b>  | <b>213</b> |
| Groundsperson, see Horticultural Tradesperson                                | 216        | Home Support Worker, see Special Care Worker                                 | 376        |
| Group Exercise Instructor, see Fitness Instructor                            | 185        | Homeopath, see Natural Therapist   | 290        |
| <b>Guide Dog Instructor</b>  | <b>208</b> | Horse Breeder, see Horse Manager   | 214        |
| Gun Hand, see Plastics and Composites Processor                              | 324        | <b>Horse Manager</b>   | <b>214</b> |
| Gunsmith, see Engineering Tradesperson - Mechanical                          | 165        | <b>Horse Trainer</b>   | <b>215</b> |
| Gym Instructor, see Fitness Instructor                                       | 185        | <b>Horticultural Assistant</b>   | <b>216</b> |
|  |            | Horticultural Scientist, see Agricultural Scientist                          | 58         |
|  |            | Horticultural Technical Officer, see Agricultural Technical<br>Officer       | 59         |
|  |            | <b>Horticultural Tradesperson</b>  | <b>216</b> |
| <b>H</b>   |            |  |            |
| <b>Hairdresser</b>   | <b>208</b> |  |            |
| Hand Engraver, see Engraver  | 166        |  |            |
| <b>Handyperson</b>   | <b>209</b> |  |            |
| Hansard Reporter, see Transcript Typist                                      | 415        |  |            |

# ICT

At Swinburne, whether you like the technical, analytical or creative aspects of information and communication technologies, our courses open multiple career doors.

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|  |     |  |     |
|--|-----|--|-----|
| <b>Hospital Administrator</b>  | 217 | Information Technology Manager, see Programmer<br>(Information Technology)             | 335 |
| Hospital Food Service Manager, see Caterer                             | 108 | <b>Information Technology Support Technician</b>                                       | 229 |
| Hospital Orderly, see Ward Assistant                                   | 432 | Inquiry Agent, see Private Investigator  | 332 |
| Hospital Pharmacist, see Pharmacist                                    | 315 | Instructional Designer, see Multimedia Developer                                       | 281 |
| Hospital Porter, see Ward Assistant                                    | 432 | <b>Instrument Fitter</b>   | 229 |
| Hospital/Hostel Cleaner, see Cleaner                                   | 119 | Instrumental Teacher, see Teacher - Music  | 394 |
| <b>Hotel and Motel Front Office Attendant</b>                          | 218 | <b>Instrumentation Tradesperson</b>  | 230 |
| Hotel and Motel Manager, see Hotel and Motel Front Office<br>Attendant | 218 | <b>Insurance Agent</b>   | 230 |
| Hotel Concierge, see Hotel and Motel Front Office Attendant            | 218 | <b>Insurance Broker</b>  | 231 |
| <b>House Parent</b>  | 219 | Insurance Claims Investigator, see Insurance Officer                                   | 232 |
| Human Geographer, see Geographer                                       | 200 | <b>Insurance Officer</b>   | 232 |
| <b>Human Resources Officer</b>   | 219 | Insurance Sales Representative, see Sales Representative                               | 359 |
| Hydraulic/Water Resources Engineer, see Civil Engineer                 | 117 | Insurance Surveyor, see Insurance Officer  | 232 |
| Hydrogeologist/Hydrologist, see Geologist                              | 203 | <b>Integrated Rating</b>   | 233 |
| <b>Hydrographer</b>  | 220 | Intensive Care Paramedic, see Paramedic  | 308 |
| Hydrometeorologist, see Meteorologist                                  | 273 | <b>Interior Decorator</b>  | 233 |
| Hydrometric Officer, see Hydrographer                                  | 220 | <b>Interior Designer</b>   | 234 |
|  |     | International/Overseas Officer, see Bank Officer                                       | 84  |
|  |     | Internet Services and Support Person, see Information<br>Technology Support Technician | 229 |
| <b>Illustrator</b>   | 221 | <b>Interpreter</b>   | 235 |
| Import/Export (Administration) Manager, see Importer and<br>Exporter   | 222 | <b>Inventory and Supply Officer</b>  | 235 |
| Import/Export (Distribution) Manager, see Importer and<br>Exporter     | 222 | Investment Adviser, see Financial Dealer and Broker                                    | 179 |
| Import/Export (Sales/Marketing) Manager, see Importer and<br>Exporter  | 222 | Investment Analyst, see Accountant   | 48  |
| Import/Export Clerk, see Transport Clerk                               | 417 | Investment Banker/Merchant Banker, see Financial Dealer<br>and Broker                  | 179 |
| <b>Importer and Exporter</b>   | 221 | Investment Officer, see Insurance Officer  | 232 |
| <b>Indigenous Community Liaison Officer</b>                            | 222 | Irrigation Installer, see Plumber  | 325 |
| Indigenous Park Ranger, see Park Ranger                                | 310 | Irrigation/Drainage Engineer, see Civil Engineer                                       | 117 |
| Industrial Biochemist, see Biochemist                                  | 88  | IT Account Manager, see Sales Representative (Information<br>Technology)               | 360 |
| Industrial Cleaner, see Cleaner  | 119 | IT Applications Consultant, see Sales Representative<br>(Information Technology)       | 360 |
| <b>Industrial Designer</b>   | 223 | IT Lecturer, see Information Technology Educator                                       | 228 |
| <b>Industrial Engineer</b>   | 224 | IT Sales Consultant, see Sales Representative (Information<br>Technology)              | 360 |
| <b>Industrial Engineering Technologist</b>                             | 225 | IT Technical Writer, see Information Technology Educator                               | 228 |
| Industrial Engraver, see Engraver                                      | 166 | IT Training Consultant, see Information Technology Educator                            | 228 |
| Industrial Pharmacist, see Pharmacist                                  | 315 |  |     |
| Industrial Plant Cleaner, see Cleaner                                  | 119 |  |     |
| <b>Industrial Relations Officer</b>                                    | 226 | <b>J</b>   |     |
| Industrial Screening Audiometrist, see Audiometrist                    | 79  | <b>Jackaroo</b>  | 236 |
| <b>Industrial Spray Painter</b>  | 226 | Janitor, see Handyperson   | 209 |
| <b>Industrial Textiles Fabricator</b>                                  | 227 | Jazz Musician, see Musician  | 285 |
| Industrial/Production Chemist, see Chemist                             | 112 | <b>Jeweller</b>  | 237 |
| Information Manager, see Librarian                                     | 246 | Jillaroo, see Jackaroo   | 236 |
| Information Systems Auditor, see Computer Systems Auditor              | 125 | <b>Jockey</b>  | 238 |
| <b>Information Technology Administrator</b>                            | 227 | <b>Joiner</b>  | 238 |
| <b>Information Technology Educator</b>                                 | 228 | <b>Journalist</b>  | 239 |

# INTERNATIONAL

At Swinburne, you can do one or two semesters of international study, a study tour in another country or an international work placement.

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|  |     |  |  |
|--|-----|--|--|
| Judge, see Lawyer  |     |  |  |
| Junior Insurance Clerk, see Insurance Officer                                |     |  |  |
| <b>K</b>   |     |  |  |
| Kennel Hand, see Animal Attendant  |     |  |  |
| Kiln Operator - Ceramics, see Machine Operator (Non-metal products)          | 66  |  |  |
| Kiln Operator (Wood Operator), see Timber and Wood Production Worker         | 252 |  |  |
| Kitchen Attendant, see Kitchenhand   | 407 |  |  |
| <b>Kitchenhand</b>   | 240 |  |  |
| Knitting Mechanic, see Textile Mechanic                                      | 240 |  |  |
|  | 402 |  |  |
| <b>L</b>   |     |  |  |
| Laboratory Assistant, see Laboratory Worker                                  | 240 |  |  |
| Laboratory Technician, see Laboratory Worker                                 | 240 |  |  |
| <b>Laboratory Worker</b>   | 240 |  |  |
| Labour Market Economist, see Economist                                       | 154 |  |  |
| Labourer, see Construction Worker  | 127 |  |  |
| Laminator, see Plastics and Composites Processor                             | 324 |  |  |
| <b>Land Economist</b>  | 241 |  |  |
| Land Hydrographer, see Hydrographer  | 220 |  |  |
| Land Information Officer, see Cartographer                                   | 106 |  |  |
| Land Information Systems Officer, see Geographic Information Systems Officer | 201 |  |  |
| <b>Landcare Worker</b>   | 241 |  |  |
| <b>Landscape Architect</b>   | 242 |  |  |
| Landscape Gardener, see Horticultural Tradesperson                           | 217 |  |  |
| Laser Operator, see Engineering Tradesperson - Fabrication                   | 164 |  |  |
| Laser Operator, see Engineering Tradesperson - Mechanical                    | 165 |  |  |
| <b>Laundry Worker</b>  | 243 |  |  |
| <b>Law Clerk</b>   | 243 |  |  |
| Lawn-mower Mechanic, see Light Engine Mechanic                               | 249 |  |  |
| <b>Lawyer</b>  | 244 |  |  |
| Leader Writer, see Journalist  | 239 |  |  |
| Leadlight Worker, see Glass and Glazing Tradesperson                         | 206 |  |  |
| Leather Craftsperson, see Craftsperson                                       | 135 |  |  |
| <b>Leather Goods Maker</b>   | 246 |  |  |
| Legal Executive, see Law Clerk   | 243 |  |  |
| Legal Practitioner, see Lawyer   | 244 |  |  |
| Legal Secretary, see Secretary   | 364 |  |  |
| Lettercutter, see Stonemason   | 385 |  |  |
| <b>Librarian</b>   | 246 |  |  |
| <b>Library Assistant</b>   | 247 |  |  |
| <b>Library Technician</b>  | 247 |  |  |
| <b>Lifeguard</b>   | 248 |  |  |
| Lifesaver, see Lifeguard   | 248 |  |  |
| <b>Lift Electrician</b>  | 249 |  |  |
|  |     |  |  |
| Lift Mechanic, see Lift Electrician  | 249 |  |  |
| <b>Light Engine Mechanic</b>   | 249 |  |  |
| Light Engine Technician, see Light Engine Mechanic                           | 249 |  |  |
| <b>Light Vehicle Motor Mechanic</b>  | 250 |  |  |
| Lighting Designer, see Film and Television Lighting Operator                 | 177 |  |  |
| Limousine Driver, see Car Driver   | 100 |  |  |
| Line Editor, see Editor  | 155 |  |  |
| Lineworker, see Electrical Linesperson                                       | 158 |  |  |
| Linguistic Anthropologist, see Anthropologist                                | 68  |  |  |
| Liquidator and Receiver, see Accountant                                      | 48  |  |  |
| Livestock Farmer, see Farmer/Farm Manager                                    | 172 |  |  |
| Livestock Transport Driver, see Truck Driver                                 | 420 |  |  |
| Local Government Clerk, see Clerical Officer - Local Government              | 120 |  |  |
| Local Government Engineer, see Civil Engineer                                | 117 |  |  |
| <b>Local Government Inspector</b>  | 251 |  |  |
| Local Laws Officer, see Local Government Inspector                           | 251 |  |  |
| Locksmith, see Engineering Tradesperson - Mechanical                         | 165 |  |  |
| Logging Truck Driver, see Truck Driver                                       | 420 |  |  |
| Logging Worker, see Timber Harvesting Operator                               | 407 |  |  |
| <b>Logistics Clerk</b>   | 251 |  |  |
| Loss Assessor/Adjuster, see Insurance Officer                                | 232 |  |  |
| Loss Prevention Officer, see Security Officer                                | 364 |  |  |
| Lotteries Agent, see Newsagent   | 293 |  |  |
| Luggage Person, see Porter - Hotel/Motel                                     | 328 |  |  |
| Luggage Porter, see Porter - Hotel/Motel                                     | 328 |  |  |
|  |     |  |  |
| <b>M</b>   |     |  |  |
| <b>Machine Operator (Non-metal products)</b>                                 | 252 |  |  |
| Machine Shorthand Reporter, see Transcript Typist                            | 414 |  |  |
| Machine Woodworker, see Wood Machinist                                       | 439 |  |  |
| Machinery Assembler, see Product Assembler                                   | 334 |  |  |
| Magician, see Entertainer  | 167 |  |  |
| Magistrate, see Lawyer   | 244 |  |  |
| Maitre d', see Waiter  | 431 |  |  |
| <b>Make-up Artist</b>  | 253 |  |  |
| <b>Management Consultant</b>   | 253 |  |  |
| Manufacturing Systems Engineer, see Mechanical Engineer                      | 263 |  |  |
| Map Maker, see Cartographer  | 106 |  |  |
| Mapping Scientist, see Cartographer  | 106 |  |  |
| Margarine and Edible Oils Process Worker, see Food Process Worker            | 188 |  |  |
| <b>Marine Biologist</b>  | 254 |  |  |
| Marine Botanist, see Botanist  | 91  |  |  |
| Marine Ecologist, see Marine Biologist                                       | 254 |  |  |
| <b>Marine Engineer</b>   | 255 |  |  |
| Marine Officer, see Fisheries Officer  | 184 |  |  |
| <b>Marine Surveyor</b>   | 256 |  |  |

# JOURNALISM

At Swinburne, our programs are designed by leading professionals and combine traditional and new media skills, so you can actively contribute to today's media.

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|   |     |   |     |
|---|-----|---|-----|
| Marine Underwriter, see Insurance Officer                                 | 232 | <b>Medical Laboratory Technician</b>                          | 268 |
| Marine Upholsterer, see Vehicle Trimmer                                   | 427 | <b>Medical Practitioner</b>                                   | 268 |
| Market Research Analyst, see Market Researcher                            | 257 | Medical Receptionist, see Receptionist                        | 347 |
| Market Research Interviewer, see Market Researcher                        | 257 | Medical Record Coder, see Clinical Coder                      | 120 |
| <b>Market Researcher</b>  | 257 | Medical Records Administrator, see Health Information Manager | 210 |
| Marketing Coordinator, see Marketing Officer                              | 257 | <b>Medical Scientist</b>                                      | 270 |
| Marketing Manager, see Marketing Officer                                  | 258 | Medical Secretary, see Secretary                              | 364 |
| <b>Marketing Officer</b>  | 257 | Meetings and Events Manager, see Events Coordinator           | 170 |
| Marketing Officer (IT), see Sales Representative (Information Technology) | 360 | Member of Parliament, see Parliamentarian                     | 310 |
| Marketing Service Manager, see Marketing Officer                          | 258 | Mental Health Nurse, see Nurse - Registered                   | 296 |
| Marriage Celebrant, see Civil Celebrant                                   | 116 | Mercantile Agent, see Debt Collector                          | 141 |
| Marriage Counsellor, see Counsellor                                       | 133 | Merchant Mariner, see Integrated Rating                       | 233 |
| <b>Massage Therapist</b>  | 258 | Merchant Seafarer, see Integrated Rating                      | 233 |
| Masseur, see Massage Therapist  | 258 | Metal Goods Assembler, see Product Assembler                  | 334 |
| Masseuse, see Massage Therapist   | 258 | Metal Machinist, see Engineering Tradesperson - Mechanical    | 165 |
| Mate, see Ship's Officer  | 370 | <b>Metal Surface Finisher</b>                                 | 270 |
| Material Handler, see Clothing and Soft Furnishing Production Worker      | 121 | Metal Trades Assistant, see Product Assembler                 | 334 |
| Materials and Testing Engineer, see Civil Engineer                        | 117 | Metal/Jewellery Worker, see Craftsperson                      | 135 |
| <b>Materials Engineer</b>   | 261 | Metallurgical Engineer, see Metallurgist                      | 271 |
| Mathematical Geologist, see Geologist                                     | 203 | <b>Metallurgical Technician</b>                               | 271 |
| Mathematical Statistician, see Statistician                               | 383 | <b>Metallurgist</b>   | 271 |
| <b>Mathematician</b>  | 261 | Meteorological Consultant, see Meteorologist                  | 273 |
| Meat Inspector, see Primary Products Inspector                            | 330 | <b>Meteorological Technical Officer</b>                       | 272 |
| <b>Meat Processing Worker</b>   | 262 | <b>Meteorologist</b>  | 273 |
| Meat Retailer, see Butcher  | 99  | Methods Engineer, see Industrial Engineer                     | 224 |
| Meat Worker, see Meat Processing Worker                                   | 262 | <b>Microbiologist</b>   | 274 |
| Mechanic, see Heavy Vehicle Motor Mechanic                                | 212 | <b>Midwife</b>  | 274 |
| Mechanic, see Light Engine Mechanic                                       | 249 | Midwifery Educator, see Midwife                               | 275 |
| Mechanic, see Light Vehicle Motor Mechanic                                | 250 | Midwifery Manager, see Midwife                                | 275 |
| <b>Mechanical Engineer</b>  | 263 | Midwifery Researcher, see Midwife                             | 275 |
| <b>Mechanical Engineering Associate</b>                                   | 264 | Midwifery Unit Manager, see Midwife                           | 275 |
| Mechanical Engineering Officer, see Mechanical Engineering Associate      | 264 | Military Pilot, see Pilot                                     | 322 |
| Mechanical Engineering Technician, see Mechanical Engineering Associate   | 264 | <b>Milliner</b>   | 275 |
| <b>Mechanical Engineering Technologist</b>                                | 265 | Mine Shift Supervisor, see Miner                              | 276 |
| <b>Mechatronic Engineer</b>   | 265 | Mine Site Geologist, see Geologist                            | 203 |
| Media Planner, see Advertising Account Executive                          | 55  | Mine Surveyor, see Surveyor                                   | 389 |
| <b>Media Presenter</b>  | 266 | <b>Miner</b>  | 276 |
| Mediator, see Counsellor  | 133 | <b>Mineral Processing Operator</b>                            | 277 |
| Medical and Health Physicist, see Physicist                               | 318 | <b>Minerals Process Engineer</b>                              | 277 |
| Medical Diagnostic Radiographer, see Medical Imaging Technologist         | 267 | <b>Mining Engineer</b>  | 278 |
| <b>Medical Imaging Technologist</b>                                       | 267 | Mining Plant Operator, see Miner                              | 276 |
| Medical Laboratory Scientist, see Medical Scientist                       | 270 | Mobile Patrol Guard, see Security Officer                     | 364 |
| Medical Laboratory Technical Officer, see Medical Laboratory Technician   | 268 | <b>Mobile Plant Operator</b>                                  | 279 |
|   |     | <b>Model</b>  | 280 |
|   |     | <b>Model Maker</b>  | 280 |
|   |     | Modellers Hand (Plaster), see Plasterer                       | 323 |
|   |     | Money Market Clerk, see Financial Dealer's Assistant          | 181 |
|   |     | Mother's Helper, see Special Care Worker                      | 376 |

# LIFE SCIENCES

At Swinburne, we equip our graduates to take up active and innovative roles as knowledge leaders and managers of scientific, technological and social change.

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|  |            |  |            |
|--|------------|--|------------|
| Motor Mechanic, see Heavy Vehicle Motor Mechanic                             | 212        | Network Programmer, see Programmer (Information Technology)                            | 335        |
| Motor Mechanic, see Light Vehicle Motor Mechanic                             | 250        | Network Support Person, see Information Technology Support Technician                  | 229        |
| Motor Vehicle Parts and Accessories Representative, see Sales Representative | 359        | Network/Systems Engineer, see Computer Engineer  | 124        |
| Motorcycle Mechanic, see Light Vehicle Motor Mechanic                        | 250        | Neurologist, see Medical Practitioner  | 269        |
| Moulder/Coremaker, see Engineering Tradesperson - Fabrication                | 164        | News Reader, see Media Presenter   | 266        |
| Movie Director, see Film, Stage and Television Director                      | 178        | News Reporter, see Journalist  | 239        |
| Movie Star, see Actor  | 51         | <b>Newsagent</b>   | <b>293</b> |
| MRI Radiographer, see Medical Imaging Technologist                           | 267        | Non-clinical Pharmacologist, see Pharmacologist  | 316        |
| <b>Multimedia Developer</b>  | <b>281</b> | <b>Non-destructive Testing Technician</b>  | <b>294</b> |
| Multimedia Programmer, see Programmer (Information Technology)               | 335        | Novelist, see Writer   | 441        |
| <b>Museum Attendant</b>  | <b>282</b> | <b>Nuclear Medicine Technologist</b>   | <b>294</b> |
| <b>Museum Curator</b>  | <b>283</b> | Nuclear/Particle Physicist, see Physicist  | 318        |
| Museum Education Officer, see Museum Curator                                 | 283        | Nurse - Division 1, see Nurse - Registered   | 296        |
| <b>Museum Officer</b>  | <b>283</b> | Nurse - Division 2, see Nurse - Enrolled   | 295        |
| Museum Technician, see Museum Officer  | 283        | <b>Nurse - Enrolled</b>  | <b>295</b> |
| Music Arranger, see Musician   | 285        | <b>Nurse - Registered</b>  | <b>296</b> |
| Music Critic, see Musician   | 285        | Nurse Educator, see Nurse - Registered   | 296        |
| Music Teacher, see Teacher - Music   | 394        | Nurse Manager, see Nurse - Registered  | 296        |
| <b>Music Therapist</b>   | <b>284</b> | Nurse Practitioner, see Nurse - Registered   | 296        |
| <b>Musician</b>  | <b>284</b> | Nurse Researcher, see Nurse - Registered   | 296        |
| Musicologist, see Musician   | 285        | Nurse's Aide, see Personal Care Worker   | 312        |
| Musterer, see Farm Hand  | 171        | Nursery Assistant, see Horticultural Assistant   | 216        |
| Myotherapist, see Massage Therapist  | 258        | Nursery Technician, see Horticultural Tradesperson                                     | 216        |
|  |            | Nursery Worker, see Horticultural Tradesperson   | 217        |
|  |            | Nursing Assistant, see Personal Care Worker  | 312        |
|  |            | Nursing Unit Manager, see Nurse - Registered   | 296        |
|  |            | Nutrition Assistant, see Dietary Aide  | 146        |
|  |            | <b>Nutritionist</b>  | <b>298</b> |
| <b>N</b>   |            | <b>O</b>   |            |
| <b>Nail Technician</b>   | <b>286</b> | Obstetrician/Gynaecologist, see Medical Practitioner                                   | 269        |
| <b>Nanny</b>   | <b>286</b> | Occupational Health and Safety Coordinator, see Occupational Health and Safety Officer | 298        |
| Nanotechnologist, see Physicist  | 318        | <b>Occupational Health and Safety Officer</b>  | <b>298</b> |
| National Parks and Wildlife Ranger, see Park Ranger                          | 309        | <b>Occupational Therapist</b>  | <b>299</b> |
| Natural Medicine Practitioner, see Natural Therapist                         | 288        | Occupational Therapy Aide, see Therapy Aide  | 405        |
| <b>Natural Resource Manager</b>  | <b>287</b> | Occupational/Industrial Hygienist, see Occupational Health and Safety Officer          | 298        |
| <b>Natural Therapist</b>   | <b>288</b> | Ocean Hydrographer, see Hydrographer   | 220        |
| Naturopath, see Natural Therapist  | 288        | Oenologist, see Winemaker  | 437        |
| <b>Naval Architect</b>   | <b>290</b> | <b>Office Administrator</b>  | <b>300</b> |
| <b>Navy Officer</b>  | <b>291</b> | Office Cashier, see Cashier  | 107        |
| Navy Pilot, see Navy Officer   | 291        | Office Manager, see Office Administrator   | 300        |
| Navy Pilot, see Navy Sailor  | 292        | Office Professional, see Secretary   | 363        |
| <b>Navy Sailor</b>   | <b>292</b> | <b>Offset Printer</b>  | <b>301</b> |
| <b>Navy Technical Sailor</b>   | <b>293</b> | Offshore Construction Diver, see Diver   | 149        |
| Network Administrator, see Information Technology Administrator              | 227        |  |            |
| Network Analyst, see Analyst (Information Technology)                        | 66         |  |            |
| Network Controller (Trains), see Train and Network Controller                | 412        |  |            |
| Network Designer, see Systems Designer (Information Technology)              | 390        |  |            |

# NURSING/HEALTH

At Swinburne, we teach the essential skills and knowledge so you can take up opportunities in new and emerging high-demand fields.

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|  |            |   |            |
|--|------------|---|------------|
| Offshore Engineer, see Marine Engineer                                       | 255        | Painter, see Artist   | 75         |
| Onshore Construction Diver, see Diver  | 149        | Palaeontologist, see Geologist  | 203        |
| Open-cut Miner, see Miner  | 276        | <b>Panel Beater</b>   | <b>307</b> |
| Operating Theatre Assistant, see Operating Theatre Technician                | 301        | <b>Paper and Pulp Operator</b>  | <b>307</b> |
| Operating Theatre Orderly, see Operating Theatre Technician                  | 301        | Paper Machine Operator, see Paper and Pulp Operator                                       | 307        |
| Operating Theatre Support Officer, see Operating Theatre Technician          | 301        | Para Planner, see Financial Dealer's Assistant  | 181        |
| <b>Operating Theatre Technician</b>  | <b>301</b> | Paralegal, see Law Clerk  | 243        |
| Operations Researcher, see Research Officer                                  | 353        | <b>Paramedic</b>  | <b>308</b> |
| Operations Systems Analyst, see Analyst (Information Technology)             | 66         | Paramedic Clinical Instructor, see Paramedic  | 308        |
| Operations Systems Designer, see Systems Designer (Information Technology)   | 390        | Parcel Post Officer, see Postal Employee  | 329        |
| Operations/Accounts Officer, see Bank Officer                                | 84         | <b>Park Ranger</b>  | <b>309</b> |
| Ophthalmologist, see Medical Practitioner                                    | 269        | Parking Inspector, see Local Government Inspector   | 251        |
| <b>Optical Dispenser</b>   | <b>302</b> | Parking Inspector/Officer, see Local Government Inspector                                 | 251        |
| <b>Optical Mechanic</b>  | <b>302</b> | <b>Parliamentarian</b>  | <b>310</b> |
| Optical Physicist, see Physicist   | 319        | Parole Officer, see Probation and Parole Officer  | 333        |
| Optical Technician, see Optical Mechanic                                     | 302        | Passenger Service Assistant, see Transport Services Officer                               | 418        |
| <b>Optometrist</b>   | <b>303</b> | Passenger Service Attendant (Trains), see Train Crew Employee                             | 413        |
| <b>Oral Health Therapist</b>   | <b>303</b> | Pastry Chef, see Pastrycook   | 311        |
| Oral/Maxillofacial Surgeon, see Dentist                                      | 145        | <b>Pastrycook</b>   | <b>311</b> |
| Orderly, see Ward Assistant  | 432        | <b>Patent Examiner</b>  | <b>312</b> |
| Organic Chemist, see Chemist   | 112        | Pathologist, see Medical Practitioner   | 269        |
| Organisational Psychologist, see Psychologist                                | 338        | Pathology Technical Officer, see Medical Laboratory Technician                            | 268        |
| Orientation and Mobility (Guide Dog) Instructor, see Guide Dog Instructor    | 208        | Patient Service Assistant, see Ward Assistant   | 432        |
| <b>Orientation and Mobility Instructor</b>                                   | <b>304</b> | Patissier, see Pastrycook   | 311        |
| Orientation and Mobility Specialist, see Orientation and Mobility Instructor | 304        | Pattern Maker, see Footwear Worker  | 190        |
| Orientation and Mobility Teacher, see Orientation and Mobility Instructor    | 304        | Patternmaker-grader, see Clothing Patternmaker  | 122        |
| Orthodontist, see Dentist  | 145        | Payroll Clerk, see Accounts Clerk   | 50         |
| <b>Orthoptist</b>  | <b>305</b> | Performer, see Actor  | 51         |
| Orthotic Technician, see Prosthetic/Orthotic Technician                      | 337        | Performer, see Entertainer  | 166        |
| Orthotist, see Prosthetist/Orthotist   | 337        | Performing Musician/Instrumentalist, see Musician   | 285        |
| <b>Osteopath</b>   | <b>305</b> | Periodontist, see Dentist   | 145        |
| Outboard Motor Mechanic, see Light Engine Mechanic                           | 249        | Permaculturalist, see Farmer/Farm Manager   | 173        |
| Outdoor Power Equipment Mechanic, see Light Engine Mechanic                  | 249        | Personal and Household Goods Representative, see Sales Representative                     | 359        |
| Out-of-school Services Worker, see Child Care Worker                         | 113        | Personal Assistant, see Secretary   | 363        |
| Owners Corporation Manager, see Strata Managing Agent                        | 386        | Personal Care Assistant, see Personal Care Worker   | 312        |
|  |            | <b>Personal Care Worker</b>   | <b>312</b> |
|  |            | Personal Computer (PC) User Support Person, see Information Technology Support Technician | 229        |
|  |            | Personal Development Teacher, see Teacher - Physical Education                            | 395        |
|  |            | Personal Trainer, see Fitness Instructor  | 185        |
|  |            | Personnel Consultant, see Human Resources Officer   | 219        |
|  |            | Personnel Officer, see Human Resources Officer  | 219        |
|  |            | <b>Pest and Weed Controller</b>   | <b>313</b> |
|  |            | Pest Management Technician, see Pest and Weed Controller                                  | 313        |

## P

|   |            |
|---|------------|
| Paediatric Dentist, see Dentist         | 145        |
| Paediatrician, see Medical Practitioner | 269        |
| Painter (Fine/Visual Arts), see Artist  | 76         |
| <b>Painter and Decorator</b>            | <b>306</b> |

# PERFORMING ARTS

At Swinburne, you could find success in a diverse range of roles from actor, dancer and circus performer to makeup artist, choreographer and photostylist.

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|   |            |  |            |
|---|------------|--|------------|
| Pet Food Processing Machine Operator, see Food Process Worker               | 188        | <b>Police Officer - State</b>  | <b>327</b> |
| Pet Groomer, see Animal Attendant   | 66         | <b>Political Scientist</b>   | <b>328</b> |
| Pet Shop Attendant, see Animal Attendant                                    | 66         | Politician, see Parliamentarian                                      | 310        |
| <b>Petroleum and Gas Plant Operator</b>                                     | <b>314</b> | Pool Attendant, see Lifeguard  | 248        |
| Petroleum and Gas Process Operator, see Chemical Plant Operator             | 111        | Porter - Hospital, see Ward Assistant                                | 432        |
| <b>Petroleum Engineer</b>   | <b>314</b> | <b>Porter - Hotel/Motel</b>  | <b>328</b> |
| Petroleum Geologist, see Geologist  | 203        | Postal Delivery Officer, see Postal Employee                         | 329        |
| Pharmaceutical Representative, see Sales Representative                     | 359        | <b>Postal Employee</b>   | <b>329</b> |
| Pharmaceuticals Production Machine Operator, see Food Process Worker        | 188        | Postal Officer, see Postal Employee                                  | 329        |
| <b>Pharmacist</b>   | <b>315</b> | Postal Sorting Officer, see Postal Employee                          | 329        |
| <b>Pharmacologist</b>   | <b>316</b> | Postal Transport Officer, see Postal Employee                        | 329        |
| Pharmacy Sales Assistant, see Sales Assistant                               | 358        | Potter/Ceramicist, see Craftsperson                                  | 135        |
| Phlebotomist, see Medical Laboratory Technician                             | 268        | Poultry Farm Hand, see Farm Hand                                     | 172        |
| <b>Photographer</b>   | <b>317</b> | Poultry Processor, see Food Process Worker                           | 188        |
| Photographic Developer, see Photographic Processor                          | 317        | Poultry Technical Officer, see Agricultural Technical Officer        | 59         |
| <b>Photographic Processor</b>   | <b>317</b> | Powder Coater, see Metal Surface Finisher                            | 270        |
| Physical Chemist, see Chemist   | 112        | <b>Power Generation Plant Operator</b>                               | <b>329</b> |
| Physical Geographer, see Geographer   | 200        | Practice Nurse, see Nurse - Registered                               | 296        |
| Physician, see Medical Practitioner   | 269        | Precision Instrument Maker and Repairer, see Instrument Fitter       | 229        |
| <b>Physicist</b>  | <b>318</b> | Precision Instrumentation Tradesperson, see Instrument Fitter        | 229        |
| <b>Physiotherapist</b>  | <b>319</b> | Pre-primary School Teacher, see Teacher - Early Childhood            | 392        |
| Physiotherapy Aide, see Therapy Aide  | 405        | Preschool Teacher, see Teacher - Early Childhood                     | 392        |
| <b>Picture Framer</b>   | <b>321</b> | Primary Metallurgical Technician, see Metallurgical Technician       | 271        |
| Piercer, see Body Artist  | 90         | <b>Primary Products Inspector</b>                                    | <b>330</b> |
| Piggery Worker, see Farm Hand   | 172        | Principal (Strata Management Agency), see Strata Managing Agent      | 386        |
| <b>Pilot</b>  | <b>322</b> | Print Finisher, see Binder and Finisher                              | 87         |
| Pilot Vehicle Operator, see Truck Driver                                    | 420        | <b>Printing Hand</b>   | <b>331</b> |
| Pipeline Engineer, see Civil Engineer                                       | 117        | <b>Printing Machinist</b>  | <b>332</b> |
| Planner, see Urban and Regional Planner                                     | 423        | Printmaker, see Artist   | 76         |
| Plant Ecologist, see Botanist   | 92         | Prison Officer, see Correctional Officer                             | 132        |
| Plant Operator, see Mobile Plant Operator                                   | 279        | Private Art Teacher, see Teacher - Art                               | 392        |
| Plant Pathologist, see Botanist   | 92         | Private Detective, see Private Investigator                          | 332        |
| Plant Physiologist, see Botanist  | 92         | Private Eye, see Private Investigator                                | 332        |
| Plant Scientist, see Botanist   | 91         | <b>Private Investigator</b>  | <b>332</b> |
| Plant Taxonomist, see Botanist  | 92         | Private Marine Surveyor, see Marine Surveyor                         | 256        |
| <b>Plasterer</b>  | <b>323</b> | Private Music Teacher, see Teacher - Music                           | 394        |
| Plastic Processing Machine Operator, see Plastics and Composites Processor  | 324        | <b>Probation and Parole Officer</b>                                  | <b>333</b> |
| <b>Plastics and Composites Processor</b>                                    | <b>324</b> | Process Worker, see Product Assembler                                | 334        |
| <b>Plumber</b>  | <b>324</b> | Producer/Director (Games Development), see Games Developer           | 198        |
| <b>Podiatrist</b>   | <b>325</b> | <b>Product Assembler</b>   | <b>334</b> |
| Police Aboriginal Liaison Officer, see Indigenous Community Liaison Officer | 222        | Product Designer, see Industrial Designer                            | 223        |
| Police Liaison Officer, see Indigenous Community Liaison Officer            | 222        | Product Examiner, see Clothing and Soft Furnishing Production Worker | 121        |
| <b>Police Officer - Australian Federal Police</b>                           | <b>326</b> | Production Assistant, see Film and Television Producer's Assistant   | 178        |
|   |            | <b>Production Crew Member</b>  | <b>334</b> |
|   |            | Production Horticulturist, see Farmer/Farm Manager                   | 173        |

# PSYCHOLOGY

At Swinburne, we take a real-world human focus, which provides you with highly-developed practical and research skills.

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|  |            |   |            |
|--|------------|---|------------|
| Production Operator (Panel and Board), see Timber and Wood Production Worker | 407        | Radio and Television Announcer, see Media Presenter   | 266        |
| <b>Programmer (Information Technology)</b>                                   | <b>335</b> | Radio Announcer, see Media Presenter  | 266        |
| <b>Projectionist</b>   | <b>336</b> | <b>Radio Dispatcher</b>   | <b>345</b> |
| Proofreader, see Editor  | 155        | Radiographer, see Medical Imaging Technologist  | 267        |
| Property Conveyancer, see Conveyancer  | 130        | Radiologist, see Medical Practitioner   | 269        |
| Property Economist, see Land Economist                                       | 241        | Railway Engineer, see Civil Engineer  | 117        |
| Property Valuer, see Valuer  | 424        | <b>Railway Infrastructure Worker</b>  | <b>345</b> |
| <b>Prosthetic/Orthotic Technician</b>  | <b>337</b> | Railway Signaller, see Train and Network Controller   | 412        |
| <b>Prosthetist/Orthotist</b>   | <b>337</b> | Ranger - Local Council, see Local Government Inspector  | 251        |
| Prosthodontist, see Dentist  | 145        | Ranger - Park, see Park Ranger  | 309        |
| Protective Service Officer, see Security Officer                             | 364        | Real Estate Agent, see Real Estate Salesperson  | 346        |
| Psychiatrist, see Medical Practitioner                                       | 269        | Real Estate Property Manager, see Real Estate Salesperson   | 346        |
| <b>Psychologist</b>  | <b>337</b> | Real Estate Sales Consultant, see Real Estate Salesperson   | 346        |
| Public Affairs Officer, see Public Relations Officer                         | 339        | Real Estate Sales Representative, see Real Estate Salesperson   | 346        |
| Public Health Consultant, see Home Economist                                 | 213        | <b>Real Estate Salesperson</b>  | <b>346</b> |
| Public Health Dentist, see Dentist   | 145        | Real Estate Valuer, see Valuer  | 424        |
| <b>Public Relations Officer</b>  | <b>339</b> | Real-Time Reporter (Computer Assisted Real-Time), see Transcript Typist                                 | 415        |
| <b>Public Servant - Australian Public Service</b>                            | <b>340</b> | <b>Receptionist</b>   | <b>346</b> |
| <b>Public Servant - State Government</b>                                     | <b>341</b> | <b>Records and Information Manager</b>  | <b>347</b> |
| Publicity Agent, see Public Relations Officer                                | 339        | Recreation Development Officer, see Recreation Officer  | 348        |
| <b>Publisher</b>   | <b>342</b> | <b>Recreation Officer</b>   | <b>348</b> |
| Pulp Mill Operator, see Paper and Pulp Operator                              | 308        | Recreational Dive Instructor, see Diver   | 149        |
| Puppeteer/Ventriloquist, see Entertainer                                     | 167        | <b>Recruitment Consultant</b>   | <b>349</b> |
| Purchasing and Supply Logistics Clerk, see Logistics Clerk                   | 251        | Recruitment Officer, see Recruitment Consultant   | 349        |
| Purchasing Officer, see Inventory and Supply Officer                         | 236        | <b>Recycler</b>   | <b>349</b> |
| <b>Q</b>   |            | Refrigerated Goods Driver, see Truck Driver   | 420        |
| Quality Assurance Analyst (Games Development), see Games Developer           | 198        | <b>Refrigeration and Airconditioning Draftsperson</b>   | <b>350</b> |
| <b>Quality Assurance Inspector</b>   | <b>342</b> | Refrigeration and Airconditioning Electrotechnologist, see Refrigeration and Airconditioning Mechanic   | 351        |
| Quality Assurance Officer, see Quality Assurance Inspector                   | 342        | <b>Refrigeration and Airconditioning Mechanic</b>   | <b>351</b> |
| Quality Control Officer, see Quality Assurance Inspector                     | 342        | Refrigeration and Airconditioning Technical Officer, see Refrigeration and Airconditioning Draftsperson | 350        |
| Quality Coordinator, see Quality Assurance Inspector                         | 342        | Refuse/Recyclable Collector, see Recycler   | 349        |
| Quality Technician, see Quality Assurance Inspector                          | 342        | Regulatory Toxicologist, see Toxicologist   | 411        |
| <b>Quantity Surveyor</b>   | <b>343</b> | <b>Rehabilitation Counsellor</b>  | <b>352</b> |
| Quarantine Inspector, see Primary Products Inspector                         | 330        | Rehabilitation Engineer, see Biomedical Engineer  | 89         |
| Quarry and Open-cut Mining Shotfirer, see Shotfirer                          | 372        | <b>Religious Leader</b>   | <b>353</b> |
| Quarry Face Loader, see Mobile Plant Operator                                | 279        | Remedial Therapist/Myotherapist, see Natural Therapist  | 290        |
| <b>R</b>   |            | Remote Sensing Surveyor, see Surveyor   | 389        |
| RAAF General Entrant, see Air Force General Entrant                          | 59         | Renderer, see Meat Processing Worker  | 262        |
| RAAF General Entry, see Air Force General Entrant                            | 59         | Rental Service Officer, see Car Rental Officer  | 102        |
| RAAF Officer, see Air Force Officer  | 60         | Reporter, see Journalist  | 239        |
| RAAF Technical and Trade, see Air Force Technician/ Tradesperson             | 61         | Repossession Agent, see Debt Collector  | 141        |
| <b>Radiation Therapist</b>   | <b>343</b> | Rescue Paramedic, see Paramedic   | 308        |
| <b>Radiator Repairer</b>   | <b>344</b> | Research Biochemist, see Biochemist   | 88         |
|  |            | Research Chemist, see Chemist   | 112        |
|  |            | Research Meteorologist, see Meteorologist   | 273        |

## SCHOLARSHIPS

At Swinburne, scholarships can be awarded for academic achievement, but also to recognise leadership qualities, community involvement, for rural relocation and more.

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|  |            |   |            |
|--|------------|---|------------|
| <b>Research Officer</b>  | <b>353</b> | School Counsellor, see Career Adviser   | 104        |
| Residential Care Worker, see Special Care Worker                             | 376        | School Psychologist, see Career Adviser   | 104        |
| Resilient Layer, see Floor Finisher and Coverer                              | 187        | School Services Driver, see Bus Driver  | 97         |
| Resource Economist, see Economist  | 154        | <b>Science Field Officer</b>  | <b>362</b> |
| <b>Retail Buyer</b>  | <b>354</b> | Science Technical Officer, see Geoscience Technician                              | 205        |
| Retail Customer Services Representative (Postal), see Postal Employee        | 329        | Scientific Diver, see Diver   | 149        |
| Retail Manager, see Sales Assistant  | 358        | Scientific Laboratory Worker, see Laboratory Worker                               | 240        |
| <b>Rigger</b>  | <b>354</b> | Scrap Materials Buyer, see Recycler   | 349        |
| Road Infrastructure Worker, see Road Worker                                  | 355        | Scraper Operator, see Mobile Plant Operator                                       | 279        |
| <b>Road Worker</b>   | <b>355</b> | <b>Screen Printer/Stencil Preparer</b>  | <b>362</b> |
| Roadie, see Production Crew Member   | 334        | Scrip Clerk, see Financial Dealer's Assistant                                     | 181        |
| Roof Plumber, see Plumber  | 324        | Sculptor, see Artist  | 76         |
| Roof Tiler, see Roofer   | 356        | Seafood Diver, see Diver  | 149        |
| <b>Roofer</b>  | <b>356</b> | <b>Seafood Processor</b>  | <b>363</b> |
| Roofing Plumber, see Plumber   | 325        | Seafood Sales Assistant, see Sales Assistant                                      | 358        |
| <b>Room Attendant</b>  | <b>356</b> | Second Chef, see Chef   | 109        |
| Roundsperson, see Journalist   | 239        | Secondary Metallurgical Technician, see Metallurgical Technician                  | 271        |
| Roustabout (Oil and Gas), see Driller's Assistant                            | 152        | <b>Secretary</b>  | <b>363</b> |
| Rubber Extruder Operator, see Rubber Processor                               | 357        | Securities Clerk, see Financial Dealer's Assistant                                | 181        |
| Rubber Injection Moulding Machine Operator, see Rubber Processor             | 357        | Security Adviser, see Security System Technician                                  | 365        |
| Rubber Knitting Machine Operator, see Rubber Processor                       | 357        | Security Agent, see Security Officer  | 364        |
| Rubber Moulding Machine Operator, see Rubber Processor                       | 357        | Security Guard, see Security Officer  | 364        |
| <b>Rubber Processor</b>  | <b>357</b> | <b>Security Officer</b>   | <b>364</b> |
| Rubber Production Machine Operator, see Rubber Processor                     | 357        | Security Provider, see Security Officer   | 364        |
| Rubber Roll Builder, see Rubber Processor                                    | 357        | <b>Security System Technician</b>   | <b>365</b> |
| Rubber Roller Grinder Operator, see Rubber Processor                         | 357        | Seismic Blaster, see Shotfirer  | 372        |
| Rubbish Collector, see Garbage Collector                                     | 199        | Senior Laboratory Technician/Technical Officer, see Laboratory Worker             | 240        |
|  |            | Senior Sub-editor, see Editor   | 155        |
|  |            | <b>Service Station Attendant</b>  | <b>366</b> |
|  |            | Service Station Cashier, see Cashier  | 107        |
|  |            | <b>Set Designer</b>   | <b>366</b> |
|  |            | Settlement Agent, see Conveyancer   | 130        |
|  |            | <b>Settlement Clerk</b>   | <b>367</b> |
|  |            | Sewing Machine Mechanic, see Textile Mechanic                                     | 402        |
|  |            | Sewing Machinist, see Clothing and Soft Furnishing Production Worker              | 121        |
|  |            | <b>Shearer</b>  | <b>367</b> |
|  |            | <b>Shearing Shed Hand</b>   | <b>368</b> |
|  |            | Sheep/Cattle Station Hand, see Farm Hand  | 172        |
|  |            | Sheet Hand (Plaster), see Plasterer   | 323        |
|  |            | Sheetmetal Worker (Light Fabrication), see Engineering Tradesperson - Fabrication | 164        |
|  |            | Shelf Filler (Night), see Sales Assistant   | 358        |
|  |            | Sheriff, see Court Officer  | 134        |
|  |            | Shingler, see Roofer  | 356        |
|  |            | Ship's Captain, see Ship's Master   | 369        |
|  |            | <b>Ship's Catering Attendant</b>  | <b>369</b> |
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| Saddler, see Leather Goods Maker   | 246        |   |            |
| Safety Engineer, see Industrial Engineer                                     | 224        |   |            |
| Sailmaker, see Industrial Textiles Fabricator                                | 227        |   |            |
| Sailor, see Integrated Rating  | 233        |   |            |
| Sailor, see Navy Sailor  | 292        |   |            |
| <b>Sales Assistant</b>   | <b>358</b> |   |            |
| Sales Demonstrator, see Sales Representative                                 | 359        |   |            |
| Sales Manager, see Marketing Officer   | 258        |   |            |
| <b>Sales Representative</b>  | <b>359</b> |   |            |
| <b>Sales Representative (Information Technology)</b>                         | <b>360</b> |   |            |
| SAS Soldier, see Air Force Officer   | 60         |   |            |
| Saturation Diver, see Diver  | 149        |   |            |
| <b>Saw Doctor</b>  | <b>361</b> |   |            |
| Sawmill and Processing Plant Operator, see Timber and Wood Production Worker | 407        |   |            |
| Sawmill Hand, see Timber and Wood Production Worker                          | 406        |   |            |
| <b>Scaffolder</b>  | <b>361</b> |   |            |

# SUSTAINABILITY

At Swinburne, environmental concerns such as water scarcity, loss of biodiversity and climate change are challenges our students are aiming to overcome.

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|   |            |  |            |
|---|------------|--|------------|
| Ship's Deck Officer, see Ship's Officer   | 370        | Spatial Information Systems Technician, see Geographic Information Systems Officer | 201        |
| Ship's Engineer, see Marine Engineer  | 255        | Spatial Information Technician, see Surveying Technician                           | 388        |
| <b>Ship's Master</b>  | <b>369</b> | <b>Special Care Worker</b>   | <b>376</b> |
| <b>Ship's Officer</b>   | <b>370</b> | Special Education Teacher, see Teacher - Special Education                         | 398        |
| Ship's Pilot, see Ship's Officer  | 370        | Special Needs Dentist, see Dentist   | 145        |
| Ship's Surveyor, see Marine Surveyor  | 256        | Specialist Exercise Trainer, see Fitness Instructor                                | 185        |
| Shipping Officer/Clerk, see Transport Clerk                                     | 417        | <b>Speech Pathologist</b>  | <b>377</b> |
| <b>Shipwright</b>   | <b>371</b> | Speech Pathology Aide, see Therapy Aide  | 405        |
| <b>Shoe Repairer</b>  | <b>371</b> | Speech Therapist, see Speech Pathologist   | 377        |
| Shoemaker, see Footwear Worker  | 190        | Spinning Mechanic, see Textile Mechanic  | 402        |
| <b>Shotfirer</b>  | <b>371</b> | Sport and Exercise Psychologist, see Psychologist                                  | 338        |
| Sign Industry Worker, see Signmaker   | 372        | <b>Sports Administrator</b>  | <b>377</b> |
| <b>Signmaker</b>  | <b>372</b> | <b>Sports Coach</b>  | <b>378</b> |
| Signwriter, see Signmaker   | 372        | Sports Commentator, see Sportsperson   | 381        |
| Silver Service Waiter, see Waiter   | 431        | Sports Development Manager, see Sports Administrator                               | 378        |
| Singer, see Musician  | 284        | Sports Development Officer, see Sportsperson                                       | 381        |
| Skipper, see Deck Hand  | 141        | Sports Doctor, see Medical Practitioner  | 269        |
| Slater, see Roofer  | 356        | Sports Facility Manager, see Sports Administrator                                  | 378        |
| Slaughterer, see Meat Processing Worker   | 262        | Sports Marketing Manager, see Sports Administrator                                 | 378        |
| <b>Smallgoods Maker</b>   | <b>373</b> | Sports Physiotherapist, see Physiotherapist  | 319        |
| <b>Social Worker</b>  | <b>373</b> | <b>Sports Scientist</b>  | <b>380</b> |
| Social/Cultural Anthropologist, see Anthropologist                              | 68         | <b>Sportsperson</b>  | <b>381</b> |
| <b>Sociologist</b>  | <b>374</b> | Spray Finisher, see Furniture Polisher   | 197        |
| Soft Drink and Syrup Making Machine Operator, see Food Process Worker           | 188        | Spray Painter, see Vehicle Painter   | 426        |
| Soft Furnishing Maker, see Clothing and Soft Furnishing Production Worker       | 121        | Sprinkler Fitter, see Plumber  | 325        |
| Soft Tissue Therapist, see Massage Therapist                                    | 258        | <b>Stablehand</b>  | <b>382</b> |
| Software Consultant, see Sales Representative (Information Technology)          | 360        | <b>Stage Manager</b>   | <b>382</b> |
| Software Designer, see Systems Designer (Information Technology)                | 390        | Stagehand, see Theatre Mechanist   | 403        |
| Software Engineer, see Computer Engineer  | 124        | Station Hand, see Farm Hand  | 171        |
| Soil Scientist, see Agricultural Scientist                                      | 58         | <b>Statistician</b>  | <b>383</b> |
| Soldier, see Air Force Officer  | 60         | Steam, Pressure and Chemical Cleaner, see Cleaner                                  | 119        |
| Soldier, see Army Officer   | 73         | <b>Steel Fixer</b>   | <b>384</b> |
| Soldier, see Army Soldier   | 74         | Steel Roof Installer, see Roofer   | 356        |
| Soldier, see Army Soldier - Technician  | 74         | Steering and Suspension Serviceperson, see Vehicle Serviceperson                   | 427        |
| Solicitor, see Lawyer   | 244        | Stenocaptioner, see Transcript Typist  | 415        |
| Solutions Architect, see Systems Designer (Information Technology)              | 390        | Stevedore, see Waterside Worker  | 434        |
| Sonographer, see Medical Imaging Technologist                                   | 267        | <b>Stock and Station Agent</b>   | <b>384</b> |
| <b>Sound Technician</b>   | <b>375</b> | Stock Clerk, see Inventory and Supply Officer                                      | 235        |
| Sous Chef/Second Chef, see Chef   | 109        | Stockbroker's Clerk, see Financial Dealer's Assistant                              | 181        |
| Spare Parts Salesperson, see Automotive Parts Interpreter                       | 82         | Stockbroker, see Financial Dealer and Broker                                       | 179        |
| Spatial Information Scientist, see Cartographer                                 | 106        | Stone Fixer, see Stonemason  | 385        |
| Spatial Information Systems Officer, see Geographic Information Systems Officer | 201        | <b>Stonemason</b>  | <b>385</b> |
|   |            | Stonemason - Machinist, see Stonemason   | 385        |
|   |            | Store Security Officer, see Security Officer                                       | 364        |
|   |            | <b>Storeperson</b>   | <b>386</b> |
|   |            | Stores Assistant, see Storeperson  | 386        |
|   |            | Strapper, see Stablehand   | 382        |

## SCIENCE

At Swinburne, our range of science options will give you industry-relevant grounding to put you in demand in the workforce, and in a position to make a real difference to the world.

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|   |            |   |            |
|---|------------|---|------------|
| Strata Manager, see Strata Managing Agent   |            |   |            |
| <b>Strata Managing Agent</b>  | <b>386</b> | Taxation Economist, see Economist                                   | 154        |
| Stratigrapher, see Geologist  | 203        | Taxi Driver, see Car Driver   | 101        |
| Street Performer, see Entertainer   | 166        | <b>Taxidermist</b>  | <b>391</b> |
| Structural Engineer, see Civil Engineer   | 117        | Tea and Coffee Processing Machine Operator, see Food Process Worker | 188        |
| Structural Engineering Design Drafter, see Civil and Structural Engineering Associate | 115        | <b>Teacher - Art</b>  | <b>391</b> |
| Structural Geologist, see Geologist   | 203        | Teacher - Creative Arts, see Teacher - Art                          | 391        |
| Student Counsellor, see Career Adviser  | 104        | Teacher - Creative Arts, see Teacher - Music                        | 394        |
| Stuffcutter, see Footwear Worker  | 190        | <b>Teacher - Early Childhood</b>                                    | <b>392</b> |
| <b>Stunt Performer</b>  | <b>387</b> | <b>Teacher - English as a Second Language</b>                       | <b>393</b> |
| Sub-editor, see Editor  | 155        | <b>Teacher - Music</b>  | <b>394</b> |
| Submarine (Underwater) Blaster, see Shotfirer   | 372        | <b>Teacher - Physical Education</b>                                 | <b>395</b> |
| Sugarcane Analyst/Auditor, see Primary Products Inspector                             | 330        | <b>Teacher - Primary</b>  | <b>396</b> |
| Superannuation Fund Administrator, see Insurance Officer                              | 232        | <b>Teacher - Secondary</b>  | <b>397</b> |
| Support Teacher, see Teacher - Special Education                                      | 398        | <b>Teacher - Special Education</b>                                  | <b>398</b> |
| Surgeon, see Medical Practitioner   | 269        | Teacher - Visual Arts, see Teacher - Art                            | 391        |
| <b>Survey Assistant</b>   | <b>387</b> | Teacher Librarian - Primary, see Teacher - Primary                  | 396        |
| Survey Hand, see Survey Assistant   | 387        | Teacher Librarian - Secondary, see Teacher - Secondary              | 397        |
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| <b>Surveying Technician</b>   | <b>388</b> | <b>Technical and Further Education Lecturer</b>                     | <b>399</b> |
| Surveying Technologist, see Geographic Information Systems Officer                    | 201        | Technical Artist/3D Artist (Games Development), see Games Developer | 198        |
| <b>Surveyor</b>   | <b>389</b> | Technical Communicator, see Writer                                  | 441        |
| Surveyor's Field Assistant, see Survey Assistant                                      | 387        | Technical Officer (Observer), see Meteorological Technical Officer  | 272        |
| Swimming Instructor, see Fitness Instructor   | 185        | Technical Writer, see Writer  | 441        |
| Swimming Pool Attendant, see Lifeguard  | 248        | Telecommunications Engineer, see Electrical Engineer                | 157        |
| Systems Accountant, see Accountant  | 48         | Telecommunications Line and Cable Worker, see Cable Jointer         | 100        |
| Systems Administrator, see Information Technology Administrator                       | 227        | <b>Telecommunications Technician</b>                                | <b>400</b> |
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| Systems Architect, see Systems Designer (Information Technology)                      | 390        | Telephone Betting Clerk (Call Centre Operator), see Betting Clerk   | 87         |
| <b>Systems Designer (Information Technology)</b>                                      | <b>390</b> | Telephone Consultant (Banking), see Bank Officer                    | 84         |
| Systems Designer (Research), see Systems Designer (Information Technology)            | 390        | Television Presenter, see Media Presenter                           | 266        |
| Systems Engineer, see Systems Designer (Information Technology)                       | 390        | Teller, see Bank Officer  | 83         |
| Systems Programmer, see Programmer (Information Technology)                           | 335        | Terminal Area Controller, see Air Traffic Controller                | 62         |
| Systems Software Programmer, see Programmer (Information Technology)                  | 335        | Tester (Games Development), see Games Developer                     | 198        |
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|   |            | <b>Textile Mechanic</b>   | <b>402</b> |
|   |            | <b>Textile Technician</b>   | <b>403</b> |
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|   |            | <b>Theatrical Costume Maker and Designer</b>                        | <b>404</b> |
|   |            | Theatrical Director, see Film, Stage and Television Director        | 178        |
|   |            | <b>Therapy Aide</b>   | <b>404</b> |
|   |            | Therapy Assistant, see Therapy Aide                                 | 404        |
|   |            | <b>Ticket Seller</b>  | <b>405</b> |
|   |            | Tiler - Roof, see Electrician                                       | 160        |
|   |            | Tiler - Roof, see Roofer  | 356        |

## T

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| Tableworker, see Footwear Worker                            | 190 |
| TAFE Lecturer, see Technical and Further Education Lecturer | 399 |
| Tailor and Dressmaker, see Fashion Designer                 | 174 |
| Tattooist, see Body Artist                                  | 90  |
| Taxation Consultant/Taxation Agent, see Accountant          | 48  |

# TAFE

At Swinburne, TAFE could be the right start for you, building practical skills and technical expertise to make you employable, or as a pathway to uni.

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|  |            |  |            |
|--|------------|--|------------|
| Vinyl Layer, see Floor Finisher and Coverer  | 187        | Welder - First Class, see Engineering Tradesperson - Fabrication | 164        |
| Visitor Information Officer, see Tourist Information Officer                                   | 409        | <b>Welfare Worker</b>  | <b>436</b> |
| <b>Visual Merchandiser</b>   | <b>430</b> | Wharf Labourer, see Waterside Worker                             | 434        |
| <b>Viticulturalist</b>   | <b>430</b> | Wheel Aligner, see Tyre Fitter and Repairer                      | 421        |
| Vocalist, see Musician   | 285        | Window Cleaner, see Cleaner                                      | 119        |
| Vocational Education and Training (VET) Lecturer, see Technical and Further Education Lecturer | 399        | Window Dresser, see Visual Merchandiser                          | 430        |
| <b>W</b>   |            | <b>Windscreen Fitter</b>   | <b>437</b> |
| <b>Waiter</b>  | <b>431</b> | <b>Winemaker</b>   | <b>437</b> |
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| Wall and Ceiling Fixer, see Plasterer  | 323        | <b>Winery Worker</b>   | <b>438</b> |
| <b>Ward Assistant</b>  | <b>432</b> | Wireless Communications Technician, see Broadcasting Technician  | 94         |
| Wardrobe Master or Mistress, see Theatrical Costume Maker and Designer                         | 404        | Wood Craftsperson, see Craftsperson                              | 136        |
| Warehouse Assistant, see Storeperson   | 386        | <b>Wood Machinist</b>  | <b>439</b> |
| Waste Collector, see Garbage Collector   | 199        | Wood Tradesperson, see Wood Machinist                            | 439        |
| Waste Management and Graffiti Officer, see Garbage Collector                                   | 199        | Wood Turner, see Wood Machinist                                  | 439        |
| <b>Watch and Clock Maker and Repairer</b>  | <b>432</b> | <b>Wool Classer</b>  | <b>439</b> |
| <b>Water and Wastewater Plant Operator</b>   | <b>433</b> | Wool Handler, see Shearing Shed Hand                             | 368        |
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| Water Inspector, see Water Services Officer  | 434        | Wool Valuer, see Wool Classer                                    | 439        |
| <b>Water Services Officer</b>  | <b>433</b> | <b>Word Processing Operator</b>                                  | <b>440</b> |
| <b>Waterside Worker</b>  | <b>434</b> | Wrecker, see Vehicle Dismantler                                  | 426        |
| Weather Forecaster, see Meteorologist  | 273        | <b>Writer</b>  | <b>441</b> |
| Weaving Mechanic, see Textile Mechanic   | 402        | <b>Y</b>   |            |
| <b>Web Designer/Developer</b>  | <b>435</b> | <b>Youth Worker</b>  | <b>442</b> |
| Webmaster, see Web Designer/Developer  | 435        | <b>Z</b>   |            |
| <b>Weight Loss Counsellor</b>  | <b>436</b> | Zookeeper, see Animal Technician                                 | 67         |
| Weights and Measures Inspector, see Trade Measurement Officer                                  | 411        | <b>Zoologist</b>   | <b>443</b> |

# VET IN SCHOOLS

At Swinburne, we offer practical, hands-on skills education and training courses that you can do while still at school completing VCE or VCAL.

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# MAKE AN EDUCATED DECISION



## CAREER ADVICE

### Job Guide

Helping individuals to explore career options, *Job Guide* provides over 530 job descriptions including personal requirements, education and training, employment opportunities and related jobs. The guide also includes useful information on the job search process and helpful industry contacts. Suitable for students, those looking to change career, upgrade their skills or re-enter the workforce. Available in state- and territory- specific editions or as a national CD-Rom.

### OZJAC – Australian Courses and Careers Information System

OZJAC is the ultimate career planning tool. OZJAC provides comprehensive and up-to-date information on all accredited courses and the Australian universities, TAFEs and Registered Training Organisations that offer them. OZJAC is an interactive, easy-to-use CD-Rom and website-delivered career exploration tool that enables users to make the most educated decision about their career options. For a free trial of OZJAC, or more information, please visit [www.OZJAC.com.au](http://www.OZJAC.com.au) or Freecall 1800 682 133. Suitable for career advisers, libraries, employment organisations, students, those looking to change career, upgrade their skills or re-enter the workforce.

## SECONDARY EDUCATION ADVICE

### Good Schools Guide Victoria

*The Good Schools Guide* helps you to narrow down the list of schooling options in order to choose the right school for your child. Comprehensive information on every Victorian secondary school from every sector can easily be reviewed and compared. Extensive information is available through school profiles, including enrolment numbers, fees, VCE results, subjects offered, extra-curricular activities, support staff, contact details and much more. A complete scholarships directory is also available along with detailed editorial on the boarding school experience, school curriculum, how to enrol and advice on choosing the right school.

## HIGHER EDUCATION ADVICE

### Good Universities Guide

Containing Australia's only degree and university performance ratings, *The Good Universities Guide* carefully rates and ranks Australian universities and private higher education providers across 30 comprehensive fields of study. The Guide provides detailed information on choosing the right course, what to expect at university, the costs and financial assistance available, universities and private higher education provider profiles along with how the courses compare using relevant criteria, such as entry difficulty, duration, fees, study modes and cut-off scores. This title is suitable for both domestic and international students.

### The Good Universities Guide to MBA and Management Courses

*The Good Universities Guide to MBA and Management Courses* offers readers comprehensive and independent ratings and rankings across a number of characteristics, including fees, contact hours, qualifications, management experience and graduate salary. Extensive information on all the Australian MBAs, DBAs and other management programs, along with details of how to get in, GMAT requirements and specialisations are available in this Guide. This title is suitable for both domestic and international students.

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- B. GUARANTEED JOB
- C. GREAT SALARY
- D. FREE TUITION
- E. ALL OF THE ABOVE

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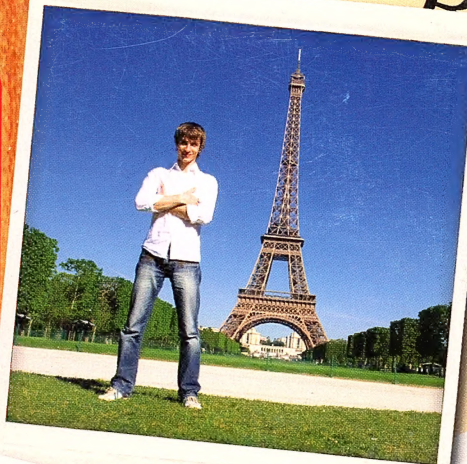
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